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B.R. 1736 (38)

RESTRICTED

NAVAL STAFF HISTORY

SECOND WORLD WAR

SELECTED BOMBARDMENTS
(MEDITERRANEAN), 1940-1941

(Battle Summaries Nos. 1, 6, 7 & 19)



1954

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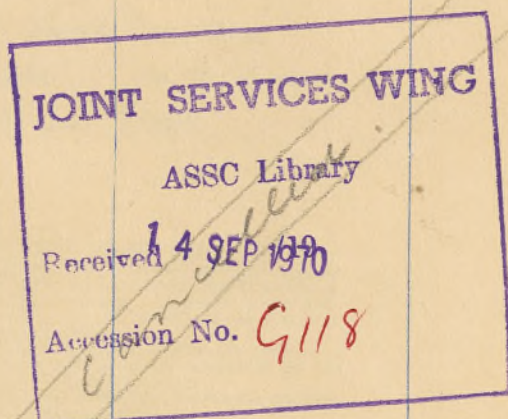
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B.R. 1736 (38)

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BATTLE SUMMARIES

No. 1 : French Fleet, Oran

No. 6 : Bardia No. 7 : Genoa

No. 19 : Tripoli

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HISTORICAL SECTION

ADMIRALTY

Admiralty, S.W.1
31st December, 1954

H.S. 26/53.

B.R. 1736(38), Naval Staff History, Second World War, *Selected Bombardments (Mediterranean)*, 1954, having been approved by My Lords Commissioners of the Admiralty, is hereby promulgated.

The following Battle Summaries are hereby superseded:—

Battle Summary No. 1: French Fleet, Oran—*contained in*
B.R. 1736(1)

„ „ No. 6: Bardia—*contained in B.R. 1736(4)*

„ „ No. 7: Genoa—*contained in B.R. 1736(4)*

„ „ No. 19: Tripoli—*B.R. 1736(12)*

B.R. 1736(12) should be destroyed in accordance with the instructions contained in B.R. 1.

By Command of Their Lordships,

J. G. Lang

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FOREWORD

THE FOUR Battle Summaries superseded by this volume were originally issued in 1942, and were contained in three separate books. In the present volume they have been largely rewritten to include information from the opposing side and other sources not available at the time they were produced, and have been arranged each as a separate chapter. They have also been amended in matters of detail, where such have proved in error.

The most interesting additions which have been made are an account of the movements of the Italian Battlefleet and its narrowly missed contact with Force "H" after the latter had bombarded Genoa (Chapter III), and the over-estimation of the damage inflicted on the French battle-cruiser *Dunkerque* by the F.A.A. torpedoes at Mers-el-Kebir (Chapter I).

It must be remembered that all these events took place in the early days of radar. Few ships were fitted with sets other than for the detection of high-flying aircraft. Sets which might have facilitated the approach to Genoa or Tripoli, for example, had not yet been produced.

Plans illustrating the events described have been completely redrawn to include up-to-date information and will be found at the end of the volume, together with a reference chart of the Mediterranean Sea.

June, 1953

Abbreviations

A.A.	anti-aircraft	F/B	flying boat
A/C	aircraft	G.P.	general purpose (bomb)
A.C.	aircraft carrier	G.I.C.	Gunnery Individual Control
A.M.	Admiralty message	H.E.	high explosive
A.N. 29	Convoy: Alexandria—North No. 29, <i>etc.</i>	H.L.B.	high-level bombing
A.P.	armour-piercing (shell)	H.Q.	Headquarters
A.P.C.	Armour-piercing capped (shell)	M.E. 7	Convoy: Malta—East, No. 7
A/S	anti-submarine	R.A.(A)	Rear-Admiral (Air)
A.T.O.	assisted take-off (for A/C in carrier)	R.A.F.	Royal Air Force
B.Cr.	battle cruiser	R.F.A.	Royal Fleet Auxiliary
B.S.	battleship	R.P.A.	reference point A
C.-in-C.	Commander-in-Chief	S.A.P.	semi-armour-piercing
C.P.C.	common pointed capped (shell)	S/M	submarine
Cr.	cruiser	S.O.	Senior Officer
D.F.	Destroyer Flotilla	T.O.O.	time of origin
Dr.	destroyer	T.S.D.S.	two-speed destroyer sweep
F.A.A.	Fleet Air Arm	T.S.R.	Torpedo Spotter Reconnaissance (A/C)
		V.A.C.	Vice-Admiral Commanding
		V.A.L.F.	Vice-Admiral Light Forces
		W/T	wireless telegraphy

CHAPTER I

(Battle Summary No. 1)

Operations against the French Fleet at Mers-el-Kebir (Oran)

3rd-6th July 1940

1. POLITICAL SITUATION, JUNE-JULY 1940

THE EVENTS dealt with in the ensuing chapter constitute one of the saddest episodes in the long history of Anglo-French relations. Neither now, nor at the time, did any responsible British leader regard them with anything but abhorrence; to add to the distresses of an Ally, suddenly overwhelmed by swift and shattering misfortune, could not be other than repugnant. Only the direst necessity could have dictated such a course of action. The necessity was dire enough, in all conscience, and few now will deny that for the Government to have shrunk from the stern and painful decision would have been tantamount to a dereliction of duty.

The situation created by the collapse of French military resistance in June 1940 brought to the forefront the question of the disposal of the powerful modern French Fleet. With France eliminated from the contest, Great Britain would stand virtually alone, separated only by the English Channel from the triumphant German Army and threatened by the largest Air Force in the World. On her command of the sea depended her very existence. Suddenly to lose the co-operation of the French Fleet would be a severe blow, but it was a matter of life and death that it should not be added to those of her opponents and used against her.

In circumstances of increasing chaos the march of events was swift. On 11th June the Prime Minister (M. Reynaud) and the French Government retired to Tours, and three days later moved on to Bordeaux. On the same day the Germans entered Paris.

It was M. Reynaud who had declared: "We shall fight before Paris. We shall fight behind Paris. We shall shut ourselves up in one of our Provinces; and, if they drive us out, we shall go to North Africa and, if need be, to our American possessions." It was M. Reynaud who, on 16th June, asked the British Government to release France from her treaty obligations. The Cabinet refused to do so and asked for French warships to be despatched to British ports; then, in a magnificent gesture, offered to M. Reynaud an Act of Union. The offer fell on deaf ears. M. Reynaud was no longer in power. He had been displaced in the night of 16th-17th June by a defeatist group headed by Marshal Pétain, General Weygand, Admiral Darlan, Messieurs Laval, Baudouin and other politicians.

Negotiations with Germany were opened on 17th June, when Marshal Pétain, in a letter to Hitler, asked if he was ready to sign with him, as between soldiers after the fight and in honour, terms that would put an end to hostilities.

The British Government, receiving the news "with grief and amazement," refused to release France from her treaty obligations, and announced its intention to continue the fight. Every effort was made to persuade the French Government to order the French Fleet to proceed to British ports, or to sink itself before armistice terms were discussed; but all was in confusion, and no clear guarantee could be obtained. At the same time it was determined that, if all other courses failed, action should be taken to prevent any important French ships falling into enemy hands. British offers of assistance to the French authorities in arranging for an evacuation from Marseilles to North African ports were declined.

The terms of the Armistice signed by France were not made public until 25th June, the day on which hostilities ended. The clauses affecting the French sea forces stated that the French Fleet was to be assembled at ports under Italian or German control and demilitarised (see Appendix A).

It seemed clear to the British Government that in these clauses the enemy had merely provided themselves with a pretext for keeping the whole French Fleet in a state of readiness for action against us when an opportunity occurred. H.M. Government had evidence, too, that from 20th June the Germans were in possession of, and were using, French naval codes.

The first reactions to the Armistice terms of the French naval, military and colonial authorities indicated a determination to fight on. This attitude, however, in face of instructions emanating from the Bordeaux Council, was soon abandoned. It was obvious that protestations by the French Commanders "that the French Fleet would never be surrendered" constituted but a feeble guarantee. The British Government consequently decided to offer the French Naval Commanders the following alternatives:—to continue to fight; complete immobilisation in certain ports; to demilitarise or sink their ships. By no other means could the French Fleet be prevented from falling into the hands of a foresworn and perjured enemy.¹

Reports received from various sources indicated that, while the senior French officers had elected to obey their central government, most of the juniors desired to continue the struggle. The men, divided in their loyalties and lacking firm leadership, were chiefly influenced by the fear of reprisals on their families.

2. FRENCH FLEET AT ORAN, COAST DEFENCES, ETC.

The bulk of the French Fleet at the time of the Armistice was distributed between Toulon and the French North African ports in the Western Mediterranean.² A squadron of one battleship, four cruisers and a few destroyers was at Alexandria, operating with Admiral Sir Andrew Cunningham's Mediterranean Fleet; and the new battleships *Richelieu* and *Jean Bart*, which had been completing at Brest, had sailed a few days before respectively for Dakar and Casablanca on the African Atlantic seaboard.³ But by far the

¹ It is now known that, in fact, on various dates between June 1940 and the Allies' Armistice with Italy in September 1943, two 6-inch cruisers, ten destroyers, seven submarines, six corvettes, eight minesweepers and one minelayer were transferred to the Italians and manned by Italian crews.

² See Naval Staff History: *Mediterranean*, Vol. I.

³ See Naval Staff History: *Battle Summary No. 3*.

most important concentration was at Mers-el-Kebir, under Vice-Admiral Gensoul, where were two battlecruisers (the *Dunkerque*¹ and *Strasbourg*¹), two battleships (the *Provence*² and *Bretagne*²), the 10,000-ton aviation transport *Commandant Teste*, three light cruisers, and three destroyers; while at Oran (3 miles away) there were seven destroyers and four submarines.³

The shore defences of Mers-el-Kebir consisted of a battery of two 7·5-inch guns on top of a hill to the west of the harbour. The harbour entrance was protected by an anti-torpedo boom and anti-submarine booms, while a mine net stretched from Cape Falcon to a point one mile north of Cape Canastel. The breakwater (30 feet high) and Fort Mers-el-Kebir (100 feet high) afforded a certain amount of protection to the side armour of the ships inside the harbour from short-range fire.

In the vicinity of Oran there was a battery of two 9·2-inch guns at Cape Canastel.

3. ASSEMBLY OF FORCE "H" AT GIBRALTAR

In the welter of uncertainty and disillusion of those bitter days, the Government and the Admiralty had reacted swiftly. In order to fill the Allied naval vacuum in the Western Mediterranean, caused by the defection of the French Fleet, the Admiralty decided to assemble a strong force⁴—to be known as Force "H"—at Gibraltar; and on 27th June Vice-Admiral Sir James Somerville was ordered to hoist his flag in the *Arethusa* and to proceed there to take command of Force "H". His immediate task was to secure the transfer, surrender or destruction of the French ships at Mers-el-Kebir and Oran, so as to ensure that they should not fall into German or Italian hands. It was hoped that the employment of force would be unnecessary, but every preparation to use it was to be made. This was explained to him in an interview with the First Lord⁵ and the First Sea Lord,⁶ "The opinion I held after this meeting", Admiral Somerville subsequently wrote, "was that the French collapse was so complete, and the will to fight so entirely extinguished, that it seemed highly improbable that the French would, in the last resort, resist by force the British demands."⁷

The Vice-Admiral sailed from Spithead in the *Arethusa* on 28th June. During his passage he was in constant communication with the Admiralty. On the 29th he received Admiralty message 0435/29, stating certain alternatives which it was proposed to offer the French, *viz.*, (a) to steam their ships to a British port, or (b) to sink their ships, or (c) to have their ships sunk by gunfire. Later in the day the Admiralty directed the submarines *Proteus* and *Pandora* to patrol off Oran and Algiers respectively, in order to report any French movements, but *not* to attack;⁸ and on the 30th they ordered the Vice-Admiral, Aircraft Carriers⁹, to establish a destroyer patrol 30 miles west of Oran and that, should the *Dunkerque* and *Strasbourg* proceed to the westward, they were to be captured and taken to the United Kingdom.¹⁰

¹ Main armament: eight 13-inch guns.

² Main armament: eight 13·4-inch guns.

³ Actual dispositions on 3rd July.

⁴ One battlecruiser, 3 battleships, 1 aircraft carrier, 3 cruisers, 19 destroyers.

⁵ The Right Hon. A. V. Alexander, M.P.

⁶ Admiral of the Fleet Sir Dudley Pound, G.C.B., G.C.V.O.

⁷ Report of proceedings by F.O., Force "H".

⁸ A.M. 1346/29.

⁹ Vice-Admiral L. V. Wells, C.B., D.S.O.

¹⁰ A.M. 0015/30.

Admiral Somerville arrived at Gibraltar on 30th June, where he transferred his flag to the *Hood*. He lost no time in discussing the proposed action with the Vice Admiral, North Atlantic¹, and later with Vice-Admiral Wells and his senior officers and with two officers who had recently been attached to the French as liaison officers; all were strongly opposed to the use of force², believing that this would alienate the French completely and turn them from a defeated ally into an active enemy. So impressed was Admiral Somerville by these views that he communicated them to the Admiralty at 1220³, 1st July, together with certain alternative proposals. He received a reply that evening that it was the firm intention of His Majesty's Government that if the French would not accept (any of) the alternatives then being sent to him, their ships must be destroyed.

Meanwhile a plan of operation had been drawn up, and the Admiralty was informed that the earliest date for its execution would be A.M. 3rd July. The operation was to be termed "Catapult".

4. ADMIRALTY INSTRUCTIONS TO ADMIRAL SOMERVILLE

At 0426, 2nd July, Admiral Somerville received his final instructions from the Admiralty for dealing with the French Fleet at Mers-el-Kebir.⁴ These may be summarised as follows:—

A. Four alternatives were to be offered to the French, viz:—

- (i) To sail their ships to British harbours and to continue to fight with us.
- (ii) To sail their ships with reduced crews to a British port from which the crews would be repatriated whenever desired.
- (iii) To sail their ships with reduced crews to some French port in the West Indies, such as Martinique. After arrival there they would either be demilitarised, to our satisfaction, if so desired; or be entrusted to U.S.A. jurisdiction for the duration of the war. The crews would be repatriated.
- (iv) To sink their ships.

In the case of alternatives (i) or (ii) being adopted, the ships were to be restored to France at the conclusion of the war, or full compensation would be paid if they were damaged meanwhile. If the French Admiral accepted alternative (ii), but asked that the ships should not be used during the war, we would accept this condition for so long as Germany and Italy observed the Armistice terms. We particularly did not wish to raise this point ourselves.

B. If the French Admiral refused to accept all the above alternatives and suggested demilitarisation of his ships to our satisfaction at their present berths, acceptance of this further alternative was authorised, provided that the Flag Officer, Force "H", was satisfied that the measures taken for demilitarisation could be carried out under his supervision within six hours, so as to prevent the ships being brought into service for at least one year, even at a fully equipped dockyard port.

¹ Vice Admiral Sir Dudley B. N. North, K.C.V.O., C.B., C.S.I., C.M.G.

² This was also the opinion of the Commander-in-Chief, Mediterranean.

³ Zone Minus 1 Time (B.S.T.) is used throughout this chapter.

⁴ Admiralty telegram 0103/2 July.

C. If none of the alternatives were accepted by the French, the Flag Officer, Force "H", was to endeavour to destroy the ships in Mers-el-Kebir, particularly the *Dunkerque* and the *Strasbourg*, using all means at his disposal. Ships at Oran should also be destroyed, if this did not entail any considerable loss of civilian life.

As it was undesirable to have to deal with the French Fleet at sea, the Flag Officer, Force "H", was instructed to arrive in the vicinity of Oran at his selected time, to send emissaries ashore, and to take such action as he considered fit in the period before the given time limit expired.

A further signal, timed 0108, contained the terms¹ in which these demands were to be delivered to Admiral Gensoul.

5. PLAN FOR OPERATION "CATAPULT"

A meeting of Flag and Commanding Officers was held during the forenoon of 2nd July, at which the orders for Operation "Catapult" were explained and discussed.

Captain C. S. Holland, of the *Ark Royal*, who had recently been Naval Attaché at Paris, had been selected to act as emissary, with Lieutenant-Commanders A. Y. Spearman and G. P. S. Davies, lately employed as liaison officers, to assist him. The destroyer *Foxhound* was detailed to embark these officers. Captain Holland was instructed, if necessity arose, to question the French concerning their plan for demilitarisation at two hours' notice which had been mentioned to Sir Dudley North at Gibraltar, and to enquire whether the proposed measures would render the ships "ineffective for service during 12 months, even with dockyard assistance."

The intention of the Flag Officer, Force "H", if he was obliged to employ force, was:—

A. To destroy morale, damage A.A. equipment and induce the French crews to abandon their ships by means of long-range gunfire with the main armaments of his capital ships, assisted by aircraft spotting.

B. Bombing by aircraft from the *Ark Royal*, with the same object.

C. Torpedo attack by T.S.R. aircraft from the *Ark Royal*, in order to sink or cripple those ships exposed to torpedo fire.

D. Sinking of ships still afloat by demolition parties from destroyers.

E. The cruisers were to engage light craft or shore batteries, as ordered.

The orders drawn up did not propose the laying of magnetic mines, which was held to interfere with the execution of the first or second alternatives; but, in the event, this measure had to be resorted to.²

6. ATTEMPTS TO COMMUNICATE WITH ADMIRAL GENSOUL

At 1500, 2nd July, destroyers sailed to carry out an A/S sweep in Gibraltar Bay and approaches, and Force "H", the original composition of which had

¹ See Appendix B.

² Admiral Somerville subsequently remarked that the orders had to be framed in somewhat general terms, since the exact situation which would arise could not be foreseen. He added, "In the light of after events, it is clear that these orders did not make sufficient provision for dealing with any French ships that might attempt to leave harbour after the entrance had been mined and the ships subjected to bombardment."—*Report of proceedings*.

been reduced by one battleship (*Nelson*), one cruiser (*Delhi*), and further by certain destroyers on patrol, cleared harbour at 1700.¹

The *Pandora* and *Proteus* were then nearing their patrol areas, and the latter was ordered to keep well clear to the northward of Force "H's" area of operations off Oran.

The operation orders referred to the possibility of Italian² interference, but the only evidence of their being even remotely on the alert was that at 2247, 2nd, in 36° 12½' N., 3° 4·6' W. a torpedo exploded ahead of the *Vortigern*. The submarine was hunted for 65 minutes without success.

At 0300, 3rd, the *Foxhound* was sent on ahead and arrived off Cape Falcon at 0545. Communication was established with the Port War Signal Station, and at 0620 the following message was passed to the Admiral of the Port's signal station:—

(Translation)

"To Admiral Gensoul.

The British Admiralty has sent Captain Holland to confer with you. The British Navy hopes that their proposals will enable you and the valiant and glorious French Navy to be by our side. In these circumstances your ships would remain yours and no one need have anxiety for the future. A British Fleet is at sea off Oran waiting to welcome you."

Permission for the *Foxhound* to enter the port of Mers-el-Kebir was received at 0742. She anchored at 0805, outside the net defence, in a position 1·6 miles 115° from Mers-el-Kebir Light. Five minutes later the Flag Lieutenant came alongside and informed Captain Holland that Admiral Gensoul was unable to see him, but would send his Chief of Staff.

Admiral Gensoul's refusal to confer with Captain Holland was emphasised when at 0847, 3rd, the *Foxhound* received a signal from him requesting her to sail immediately. She weighed accordingly, leaving Captain Holland and Lieutenant-Commanders Spearman and Davies behind in her motor boat. Meeting the French Flag Lieutenant off the entrance, Captain Holland handed him the written British proposals to be given to Admiral Gensoul, saying that he would await a reply.³ It was probably about 0935 when they reached Admiral Gensoul. The French ships were reported by air reconnaissance to be raising steam and furling awnings. At 1000 the Flag Lieutenant returned

¹ BATTLECRUISER:	<i>Hood</i> (eight 15-inch)	(Flag of Vice-Admiral Sir James Somerville (Ret.), K.C.B., D.S.O., V.A.C. Force "H")
BATTLESHIPS:	<i>Valiant</i> (eight 15-inch)	Captain I. G. Glennie
	<i>Resolution</i> (eight 15-inch)	Captain H. B. Rawlings, O.B.E.
A/C CARRIER:	<i>Ark Royal</i> (30 T.S.R.: 24 Fighters)	(Flag, Vice-Admiral L. V. Wells, C.B., D.S.O.) Captain C. S. Holland
CRUISERS:	<i>Arethusa</i> <i>Enterprise</i>	Captain Q. D. Graham Captain J. C. Annesley, D.S.O.
DESTROYERS:	<i>Faulknor</i> <i>Foxhound</i> <i>Fearless</i> <i>Forester</i> <i>Foresight</i> <i>Escort</i> <i>Keppel</i> <i>Active</i> <i>Wrestler</i> <i>Vidette</i> <i>Vortigern</i>	(Captain (D), 8th D.F.) Captain A. F. de Salis Lieut.-Commander G. H. Peters Commander K. L. Harkness Lieut.-Commander E. B. Tanock, D.S.C. Lieut.-Commander G. T. Lambert Lieut.-Commander J. Bostock Lieut.-Commander E. G. Heywood-Lonsdale Acting Commander E. C. L. Turner Lieut.-Commander E. N. V. Currey Lieut.-Commander D. R. Brocklebank (Ret.) Lieut.-Commander R. S. Howlett

² Italy had declared war on 11th June.

³ See Appendix B.

and handed over a written reply¹ from Admiral Gensoul confirming the assurances given to Admiral North some days previously that the French ships would never be surrendered and stating that force would be met by force.²

Then followed a further exchange of written statements and a discussion with the French Chief of Staff, who came out at 1109.³ As it was evident that Admiral Gensoul was resolved not to see Captain Holland, the latter returned on board the *Foxhound* to communicate with the Vice-Admiral.

Meanwhile Force "H" had arrived at 0910, and by means of projectors had passed the following message in French:—

(Translation)

"To Admiral Gensoul from Admiral Somerville.

We hope most sincerely that the proposals will be acceptable and that we shall have you by our side."

Force "H" then proceeded to steam to and fro across the Bay, while the *Ark Royal*, with a destroyer screen, was acting independently for flying off aircraft.

At 1140 Lieutenant-Commander Spearman was sent in with a message from the Flag Officer, Force "H", that the French ships would not be allowed to leave harbour unless the terms were accepted. It was at this time that Captain Holland signalled to the French Admiral, from the *Foxhound*, information of the action taken by Admiral Godfroy to demilitarise the French ships at Alexandria. The *Foxhound* then proceeded outside the outer boom to a position inside visual signalling range.

7. BRITISH DELEGATE RECEIVED AND TERMS REFUSED

Admiral Gensoul's reply reached the *Hood* at 1227, and Admiral Somerville, considering that it was unsatisfactory and indicated an intention to put to sea and fight, gave the order to mine the entrance. Five mines were accordingly laid by aircraft inside the booms guarding the entrance to Mers-el-Kebir harbour.

It was Admiral Somerville's first intention to open fire at 1330, but the time for a final answer was extended to 1500 on the strength of air reports that there was no immediate indication of the French ships proceeding to sea. In order to ensure the least possible delay, a signal was passed to Admiral Gensoul requesting him to hoist a large square flag at the masthead if he accepted the British terms.

These measures appeared to be effective, for at 1440 Admiral Gensoul signalled that he would receive a delegate for honourable discussion. This message forestalled, only by a few minutes, the despatch of a signal from the British Admiral notifying that he would proceed to destroy the French ships at 1530. Despite Admiral Somerville's suspicion that the French Admiral was temporizing, he authorised Captain Holland to proceed, and the latter, accompanied by Lieutenant-Commander Davies in the *Foxhound's* motor boat, reached the *Dunkerque* at 1615.

Meanwhile Admiral Gensoul had sent two messages to the French Admiralty, one at 0845 and another at 1230, stating that the British ultimatum was that they should either join the British Fleet or sink themselves. He made no

¹ From the form of Admiral Gensoul's replies—scribbled in pencil on a signal pad—it may be gathered that he wished to avoid even the appearance of having entered into formal negotiations.

² See Appendix C.

³ See Appendix D.

mention of the third alternative (to sail for some French West Indian port and there to be demilitarised or entrusted to the U.S.A.).¹ During the afternoon he received instructions to answer force with force.²

Captain Holland's reception on board the *Dunkerque* was coldly formal; Admiral Gensoul was extremely indignant and angry. A lengthy discussion ensued, in which he emphasised that the use of force would range the whole French Navy against the British, and that in effect he rejected all conditions proposed, reiterating his intention to obey the orders only of his Government and Admiral Darlan.

It was evident to Captain Holland that it was only during this discussion that Admiral Gensoul began to realise that force might actually be used. The latter then produced a secret and personal copy of the orders received from Admiral Darlan, dated 24th June.³ The opening sentence of this stated that it would be the last cypher message from Admiral Darlan. In clause 3 mention was made of taking the French ships, under certain circumstances, to the U.S.A. This loophole, however, was evidently unacceptable to Admiral Gensoul in the existing circumstances.

Whilst the discussion was proceeding an Admiralty message (T.O.O., 1614) was received at 1646 by the *Hood* instructing the Flag Officer, Force "H", to settle matters quickly or he would have reinforcements to deal with. A signal was accordingly passed by visual and wireless at 1715 to Admiral Gensoul informing him that if one of the alternatives was not accepted by 1730 his ships would be sunk. At the same time the 'Preparative for Action' was made to the British Fleet.

A summary of Admiral Gensoul's final written statement⁴ (1720/3/7/40), passed by signal from Captain Holland to the Vice-Admiral (H), reads:—

"Admiral Gensoul says crews being reduced and if threatened by enemy would go Martinique or U.S.A.; but this is not quite our proposition. Can get no nearer."

This was received in the *Hood* at 1729. As it did not comply with any of the conditions laid down, the air striking force was ordered to fly off, and the battleships stood in towards the coast.

Captain Holland left the *Dunkerque* at 1725. As he left, 'Action' was being sounded in the French ships, all of which were by that time in an advanced state of readiness for sea, with tugs standing by and control positions manned.

Meanwhile, signs of movement of French ships in the adjacent harbour of Oran having been reported by air reconnaissance, two mines were laid in its entrance, and the *Wrestler* was ordered to relieve the *Vortigern* on patrol there.

8. ACTION AGAINST THE FRENCH SHIPS AT MERS-EL-KEBIR (Plan I)

At 1754, 3rd, fire was opened at maximum visibility range of 17,500 yards, G.I.C.⁵ concentration, with aircraft spotting. The line of fire was from the north-west, so that fire from the French ships was blanked to some extent by Mers-el-Kebir Fort, and risk of damage to civilian life and property reduced.

¹ In 1949, when under examination by a French Parliamentary Commission of Enquiry, Admiral Gensoul expressed regret at not having informed the Council of Ministers in his 1230 message of the British Government's third alternative.

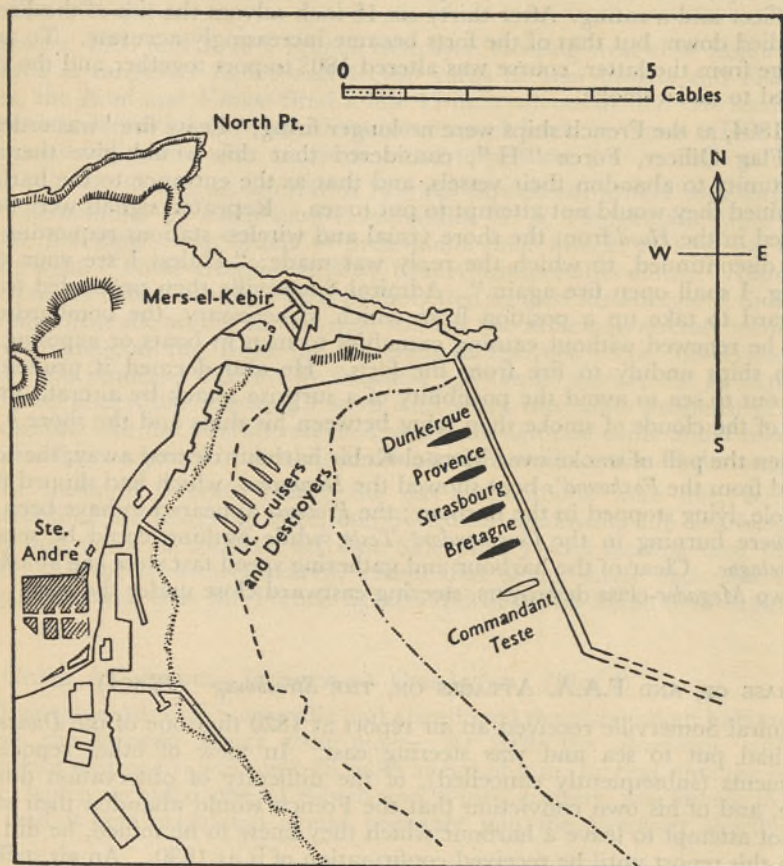
² See Appendix G.

³ See Appendix F. Admiral Gensoul asked, and received, Captain Holland's assurances that the contents should not be disseminated, since otherwise immediate German or Italian action would occur.

⁴ See Appendix E.

⁵ Gunnery Individual Control.

The capital ships and aviation transport were moored stern-on to the mole in the following order, from north-west to south-east:—*Dunkerque*, *Provence*, *Strasbourg*, *Bretagne* and the aviation transport *Commandant Teste*; while the remaining ships were moored on the west side of the harbour. The destroyers, according to an aircraft report, were under way inside the booms.



POSITIONS OF FRENCH SHIPS, MERS-EL-KEBIR

The effect of the opening salvos was observed from the *Foxhound's* motor boat. The first salvo fell short. The second hit the breakwater, sending large fragments of concrete flying into the air, which probably caused casualties to personnel on the upper decks of the battleships. The third salvo fell among the ships, and the battleship *Bretagne* blew up, a column of orange flame leaping into the sky, followed by an immense column of smoke several hundred feet high. Another smaller explosion indicated that a destroyer had blown up. By this time the harbour was shrouded in smoke from explosions and fires; direct spotting was almost impossible and air spotting most difficult. The French shore batteries and the battle cruisers *Dunkerque* and *Strasbourg* opened fire about a minute after the first British salvo. The shore batteries were promptly engaged by the *Arethusa*, the older guns of the *Enterprise* being outranged. Heavy projectiles were soon falling near the British battleships as the enemy fire, at first very short, began to improve in accuracy. The

observers in the *Foxhound's* motor boat recorded several direct hits on the French ships, another explosion with a sheet of orange flame from a battleship, and a direct hit on a large destroyer as she was leaving the harbour. None of the French projectiles hit, though a number of them (apparently 13·4-inch)¹ fell close to—and in some cases straddled—the British ships.

Some splinters caused minor superficial damage in the *Hood* and injured one officer and a rating. After thirty-six 15-inch salvoes the fire of the French ships died down, but that of the forts became increasingly accurate. To avoid damage from the latter, course was altered 180° to port together and the ships ordered to make smoke.

At 1804, as the French ships were no longer firing, 'Cease fire' was ordered. The Flag Officer, Force "H", considered that this would give them an opportunity to abandon their vessels, and that as the entrance to the harbour was mined they would not attempt to put to sea. Repeated signals were being received in the *Hood* from the shore visual and wireless stations requesting fire to be discontinued, to which the reply was made: "Unless I see your ships sinking, I shall open fire again." Admiral Somerville then proceeded to the westward to take up a position from which, if necessary, the bombardment could be renewed without causing casualties to men in boats or exposing the British ships unduly to fire from the forts. He also deemed it prudent to stand out to sea to avoid the possibility of a surprise attack by aircraft, under cover of the clouds of smoke then lying between his ships and the shore.²

When the pall of smoke over Mers-el-Kebir harbour cleared away, the scene viewed from the *Foxhound's* boat showed the *Dunkerque*, which had slipped from the mole, lying stopped in the harbour; the *Provence* appeared to have been hit, fires were burning in the *Commandant Teste*, while nothing could be seen of the *Bretagne*. Clear of the harbour and gathering speed fast were the *Strasbourg* and two *Mogador*-class destroyers, steering eastward close under the land.

9. CHASE OF, AND F.A.A. ATTACKS ON, THE *Strasbourg* (Plan I)

Admiral Somerville received an air report at 1820 that one of the *Dunkerque* class had put to sea and was steering east. In view of other reports of movements (subsequently cancelled), of the difficulty of observation due to smoke, and of his own conviction that the French would abandon their ships and not attempt to leave a harbour which they knew to be mined, he did not act on this report until he received confirmation of it at 1830. An air striking force of six Swordfish of No. 818 Squadron, armed with 250-lb. S.A.P. bombs and escorted by Skuas, which had been flown off at 1825 to attack the heavy ships in Mers-el-Kebir, was then diverted to attack the fleeing *Strasbourg*, which was accompanied by eight destroyers; and Force "H", altering course to the eastward at 1838, commenced to chase.³

During this period the *Wrestler*, patrolling off Oran, was heavily engaged by shore batteries, and at least 100 shells fell near her before she withdrew in obedience to orders.

At 1843 cruisers and destroyers were ordered to the van and, leaving the battleships to follow unscreened, the *Hood* and light craft pressed on, working up to full speed.

¹ Presumably from the French battleships, as there is no evidence of guns of this calibre having been mounted at Mers-el-Kebir.

² A report of activity at the airfield had been received in the *Hood* at 1432.

³ It is not clear why Admiral Somerville stood on to the westward for eight minutes, after receiving confirmation that the *Strasbourg* was at sea and steering to the eastward.

The bombing attack on the *Strasbourg* was well pressed home, and, although it met with heavy opposition, was believed to have obtained at least one hit. Two Swordfish aircraft failed to return, but the crews were picked up by the *Wrestler*.

At 1914 the *Forester* picked up Captain Holland, Lieutenant-Commanders Spearman and Davies, and the boat's crew of the *Foxhound's* motor boat, which was then abandoned.

Between 1933 and 1945 a French destroyer, steering west close inshore, was engaged at ranges of 12,000 and 18,000 yards by the *Arethusa* and *Enterprise*. Later, the *Hood* and *Valiant* fired a few 15-inch salvoes at her. At least three hits were observed before the destroyer turned back to Oran. The British ships were obliged to alter course to avoid torpedoes.

At 1950 six Swordfish aircraft of No. 820 Squadron, armed with torpedoes and commanded by Lieutenant-Commander G. B. Hodgkinson, were flown off the *Ark Royal*, with orders to press home their attack, making use of the failing light. These attacked at 2055, twenty minutes after sunset. Approaching from the land, with their target silhouetted against the afterglow, they were able to deliver the attack unseen, only the last two attacking aircraft encountering machine-gun fire from the screening destroyers. The observation of results was rendered difficult by darkness and funnel smoke, but an explosion was seen under the *Strasbourg's* stern and there was some evidence of a hit amidships. All the aircraft returned safely, though one came under machine-gun fire from a group of destroyers about seven miles astern of the target.

The losses of aircraft during the day's operations were five, *viz.*, two Swordfish of the bombing force, one Swordfish shadowing the *Strasbourg*, one Skua shot down in combat, and one Skua in a forced landing near the *Ark Royal*. All the crews were saved, except that of the single Skua shot down. It was remarked that the French fighters did not press home their attacks.

10. CHASE ABANDONED; RETURN TO GIBRALTAR (*Plan I*)

Meanwhile Admiral Somerville had abandoned the chase about half-an-hour before the torpedo attack took place. At 2020 the *Strasbourg*, with her attendant destroyers, was some 25 miles ahead of him; by that time the Algiers force, which included several 8-inch and 6-inch cruisers, was known to be at sea, and it was calculated would probably join the *Strasbourg* shortly after 2100.

Admiral Somerville considered that a night contact and engagement was not justified. His destroyer flotillas had not had recent experience of shadowing, and the French would be numerically superior. He summarised the situation thus:—

- a. The prospects of locating the *Strasbourg* at night were small.
- b. Force "H" would be at a disadvantage, being silhouetted against the afterglow.
- c. The speed of advance was too high to allow the destroyers to spread.
- d. The fuel endurance of the "V" and "W" class destroyers permitted only a three-hours' chase.
- e. Unless the *Hood* was in a position to support the advanced forces, the latter were numerically much inferior. This support could not be assured under night action conditions.
- f. The possible loss of British ships was unjustified as against the possibility of French ships being allowed to fall into enemy hands.
- g. The *Valiant* and *Resolution* were unscreened.

Accordingly, course was altered at 2025 to the westward, and the Admiralty was informed that Force "H" would remain to the west of Oran during the night with the intention of carrying out air attacks on the ships in Mers-el-Kebir at dawn, or when possible.

Between 1930 and 2100 French reconnaissance and bomber aircraft were fired on. These dropped a few bombs, which all fell wide except four which fell about 50 yards from the *Wrestler*. The attacks were not pressed home.

At 2150 the submarine *Proteus*, which had been keeping clear of Force "H" to the northward during the day, was ordered to patrol north of 35° 55' N. off Cap de l'Aiguille or Abuja Point (15 miles east of Oran); at the same time she and the *Pandora* (off Algiers) were ordered to sink any French ships encountered. The latter, which had reported six cruisers and four destroyers making to the westward at 1745, 3rd July, was warned that the *Strasbourg* might arrive off Algiers after 2300 that night.

During the night 3rd/4th July, Force "H" steered to reach position 36° 12' N., 1° 48' W. (about 60 miles W.N.W. of Mers-el-Kebir) at 0430, 4th, when it was intended to fly off 12 Swordfish and 9 Skuas to finish off the ships remaining afloat in the harbour. Shortly after 0400, however, dense fog was encountered; this rendered flying impossible. As Admiral Somerville had received a message from Admiral Gensoul the evening before (2250, 3rd) stating that his ships were *hors de combat* and that he was ordering the crews to evacuate them, he decided to return to Gibraltar, where Force "H" arrived without incident at 1900, 4th July.

11 REVIEW OF OPERATION BY ADMIRAL SOMERVILLE (*Plan I*)

In reviewing the operation, Admiral Somerville remarked that it was clear he committed an error of judgment in proceeding so far to the westward after ceasing fire, and gave his reasons for this decision:—

He considered that the mines laid in the entrance were sufficient to prevent any French ships from leaving, whilst the request "to cease shelling", and the heavy explosions observed, gave the impression that the French were abandoning their ships. The thought uppermost in his mind was how to complete his task without causing further loss of life to the very gallant but ill-advised Frenchmen, and without exposing his fleet to damage by the shore batteries or to submarine attack. He was also under the impression that a torpedo flight, to complete the destruction of ships afloat, had either taken off or was about to do so. In fact, however, the repeated postponement of the attack by gunfire had, unknown to him, seriously upset the *Ark Royal's* flying on and off programme.

Admiral Somerville went into the question of whether the use of force might have been avoided had Admiral Gensoul agreed at once to receive Captain Holland. The French Admiral's final offer differed, unfortunately, from the British proposals in the single proviso that the disablement of the ships would only be carried into effect if there was a danger of the French ships falling into enemy hands. Admiral Gensoul maintained that this danger was not imminent, whereas we maintained that it was. Had more time been available Captain Holland might possibly have converted Admiral Gensoul to the British point of view, but when he made his offer it was already too late, for the discussion could not be continued beyond 1720 as French reinforcements were approaching and the orders of H.M. Government were explicit that a decision had to be reached before dark.

"I consider", wrote Admiral Somerville, "that Captain C. S. Holland carried out his most difficult task with the greatest tact, courage and perseverance. That he failed in his mission was not his fault—that he so nearly succeeded is greatly to his credit."

12. PREPARATIONS TO RENEW ATTACK ON THE *Dunkerque*

After the arrival of Force "H" at Gibraltar the ships were immediately completed with fuel and ammunition in readiness, if required, to proceed to carry out operations against the *Richelieu* at Dakar.

The Flag Officer, Force "H", informed the Admiralty that it was not possible from aircraft observation positively to assess the damage to the *Dunkerque*, but that she was aground. Consequently the Admiralty directed that unless the Flag Officer, Force "H", was certain that the *Dunkerque* could not be refloated and repaired in less than a year, she was to be subjected to further destruction by bombardment. This was to precede any operation against the *Richelieu*¹.

To put this decision into effect, plans were drawn up for another operation (designated "Lever"), and the Admiralty was informed that a further bombardment would be carried out at 0900, 6th July, by Force "H" (less the *Resolution* and one destroyer).

In considering the proposed Operation "Lever" it was realised that, owing to the position of the *Dunkerque*, bombardment could only be effected at considerable loss of French lives and damage to property ashore. This view was represented to the Admiralty.

During the forenoon of 5th July, Admiral Somerville received from the Flag Officer Commanding North Atlantic the Admiralty message 2005/4, containing instructions with regard to the attitude to be adopted towards French warships, which stated that "ships must be prepared for attack, but should not fire the first shot." After confirmation at 2045, 5th, that this applied to the submarines operating off Algiers and Oran, the instructions were passed to the *Proteus* and *Pandora*. But it was already too late.

13. PROCEEDINGS OF BRITISH SUBMARINES, 4TH-6TH JULY²

When Force "H" returned to Gibraltar on 4th July, the submarines *Pandora* (Lieutenant-Commander J. W. Linton) and *Proteus* (Lieutenant-Commander T. Gordon-Duff) remained on their patrols off the North African coast.

At 1126, 4th³, the *Pandora* (off Algiers) sighted three destroyers steering 065° about 1 mile off shore, but she was unable to get within range. Three and a half hours later (1458), however, she sighted a French "cruiser", thought at the time to be one of *La Galissonnière* Class. In fact she was the *Rigault de Genouilly*, minelaying escort vessel. Turning immediately to a firing course, at 1507 the *Pandora* fired four torpedoes at about 3,800 yards range. Two certain and one probable hits were obtained; the French ship stopped at once, and soon after was observed to be on fire. Closing in, the *Pandora* saw there was no chance of her being saved. At 1632, 4th, the *Rigault de Genouilly* sank by the stern, and a few seconds later an extremely heavy explosion occurred, presumably from her magazines.

¹ An operation against the *Richelieu* was carried out a few days later by a special force under Acting Rear-Admiral R. F. J. Onslow (see Naval Staff History, *Battle Summary No. 3*).

² Times are given in G.M.T. in the *Pandora's* report, and in Zone Minus 2 in that of the *Proteus*. These times have been reduced to Zone Minus 1 in this account.

³ i.e. about 8½ hours before the Admiralty orders (2005/4) forbidding ships to "fire the first shot" were sent, and about 36 hours before they were passed to the submarines (see Section 12 *ante*).

For some time from 1718 the *Pandora* was hunted by aircraft and a destroyer or patrol craft, explosions of bombs and depth charges being heard at intervals.

The Admiralty expressed deep regret to the French Embassy for the tragic happening, which was ascribed to the fact that on the completion of the operation at Oran, on 3rd July, the instructions that French ships were no longer to be attacked did not reach one submarine.

The seaplane carrier *Commandant Teste* was more fortunate. She was sighted by the *Proteus* at 1447, 4th, bearing 160°, 6 miles (approx.), course 035°. The weather was foggy and before an attack could be made the French ship altered course to the eastward and was lost to sight.

At 2200, 5th, in obedience to instructions, the *Proteus* proceeded to patrol off Cape Khamis, about 65 miles east of Oran. At 0243, 6th, a signal from the Flag Officer Commanding North Atlantic (T.O.O. 2316/5) ordered that French ships were not to be attacked unless they attacked first.

The *Commandant Teste* was again sighted at 1734, 6th, accompanied this time by two destroyers. Shortly afterwards the *Proteus* was ordered to Gibraltar.

The *Pandora* remained on patrol without further incident till 7th July, when she too proceeded to Gibraltar.

14. F.A.A. ATTACK ON THE *Dunkerque*, 6TH JULY (Plan 2)

Meanwhile Force "H" sailed from Gibraltar at 2000, 5th July. After making a feint to the westward till after dark¹, course was shaped towards Oran at 22 knots.

Air reconnaissance of Mers-el-Kebir and Oran afforded knowledge that a light cruiser of the *Lynx* class was anchored off the entrance to Oran; the *Dunkerque* was ashore on an even keel off the town of Mers-el-Kebir, heading 295°; a light cruiser of the *Fantasque* class was ashore heading north, at the inner corner of the seaward breakwater.

At 0250, 6th, the Flag Officer, Force "H", received Admiralty instructions cancelling the bombardment² and ordering instead continuous attack by aircraft to be carried out until the *Dunkerque* was thoroughly damaged. The original programme was accordingly recast and the flying arrangements of the *Ark Royal* completely reorganised. Surmounting all difficulties expeditiously, the *Ark Royal* reported that she would be ready at 0515.

In 36° 19' N., 2° 23' W. (about 90' from Oran), at 0515, 6th, the first striking force was flown off. The attack on the *Dunkerque* was made in three waves. The aircraft taking part were armed with torpedoes carrying Duplex pistols, set for depth 12 ft., speed 27 knots.

The first wave of six Swordfish of 820 Squadron, under Lieutenant-Commander Hodgkinson, took off from the *Ark Royal* at 0515, in the dark, made its landfall at Habibas Island (about 20 miles west of Mers-el-Kebir) and then shaped course at 7,000 feet to keep 15 miles from the coast in order to gain an up-sun position from the target as soon as the sun rose.³ The attack achieved complete surprise, only one aircraft being fired at during the get-away. As the first rays of the sun, rising above thick haze, struck the *Dunkerque*, the flight commenced a shallow dive in line ahead down the path of the sun. Coming in low over the breakwater, the aircraft attacked in

¹ Admiral Somerville subsequently remarked, "It is doubtful if a feint of a large force in the Strait achieves its object, since the very bright lights of Ceuta should enable any careful observer to mark the passage of large darkened ships." (*Report of proceedings.*)

² See Section 12 *ante*.

³ Sunrise 0550: Civil twilight (sun 6° below horizon) commenced at 0522.

succession. The first torpedo hit the *Dunkerque* amidships, glanced off without exploding, and continued its run. It had probably been released inside pistol safety range. The second was thought at the time to have hit and exploded under the bridge on the starboard side; the third to have missed and exploded ashore, and the remaining three to have hit and exploded near B turret. In the light of later information,¹ it seems that no torpedo in this or subsequent attacks actually hit and damaged her. The first (as noticed by the British) glanced off without exploding. The second exploded under the stern of a trawler, the *Terre Neuve*, which—apparently unnoticed by the aircraft—was about 30 yards to starboard of the battlecruiser, and sank her. Of the remainder, three² may have hit without exploding or run into shallow water, and one missed. One torpedo exploded ashore against the jetty of the *usine électrique*.

The second attack was made by three Swordfish of 810 Squadron, under Captain A. C. Newson, R.M., with a fighter escort of six Skuas, which took off at 0545. This sub-flight manoeuvred to a position up-sun at 2,000 ft.; then at 0647, in "line astern", it turned to attack. Coming under heavy A.A. fire, it was obliged to take avoiding action during the approach, and delivered the attack from over the breakwater, the leading aircraft firing on and dispersing a group of men running to man a gun as it passed over.

The torpedo of the first aircraft was not released, as the master switch was not made. The second and third torpedoes were thought to hit the starboard side of the *Dunkerque*. During the get-away a large explosion was observed, smoke and spray rising in a great column over 600 ft. high, which might have been a magazine in the *Dunkerque*. Actually, one torpedo had hit the wreck of the *Terre Neuve*, detonating from 24 to 28 depth charges with which she was loaded, and thereby causing considerable damage to the *Dunkerque*; the other missed astern and exploded ashore.

No enemy aircraft were encountered, but the 6-inch and 4-inch batteries from the east of Oran to Mers-el-Kebir Point kept up continuous fire throughout the attack.

The third wave, also a sub-flight of three Swordfish from 810 Squadron, led by Lieutenant D. F. Godfrey-Faussett, and fighter escort of six Skuas was flown off at 0620. It made a landfall at a height of 4,000 ft. at 0650 over Cap Falcon. In "line astern" the sub-flight commenced a shallow,

¹ The estimate of the results of these and the subsequent attacks (based on careful analysis of the reports of the aircraft immediately on return to the *Ark Royal*), which was held for nearly three years, has had to be considerably modified in the light of a report made by the Executive Officer of the *Dunkerque* at the time (Captain Tanguy) to the C.-in-C., Mediterranean, in 1943. While there are differences in Captain Tanguy's report which are difficult to reconcile with the British reports, there seems no doubt that his report is in the main correct.

The British estimated the *Dunkerque* as heading about 300°; Captain Tanguy states it was 250°. This is actually borne out by a photograph taken by one of the *Ark Royal*'s aircraft soon after the attack. Careful scrutiny of this photograph in comparison with Chart No. 812 places the *Dunkerque* 800–1,000 yards further south than the position previously estimated (see plan 2). If she was heading 250° it is clear the torpedoes of the first attack must have approached very fine on the quarter or along the axis of the target, as stated by Captain Tanguy.

The British reports make no mention of the trawler *Terre Neuve*, the explosion of whose cargo of depth charges during the second attack occasioned the damage suffered by the *Dunkerque*. Presumably she was not noticed in the first attack, which accidentally sank her.

Captain Tanguy only accounts for 9 torpedoes (including—erroneously—the one which was not dropped in the second attack), i.e. 8 out of the 11 runners. Three drops in the first attack are not mentioned and were perhaps not observed.

The fact that three torpedoes, without their warheads, were recovered and subsequently returned practically intact by the French in 1943 to the Flag Officer, Force "H", is some confirmation of the accuracy of Captain Tanguy's observations.

² Two of these torpedoes were among the three returned by the French in 1943. According to Captain Tanguy, two warheads were also recovered from the sea-bed under the *Dunkerque*.

dive with avoiding action as the *Provence* and shore batteries opened fire. This sub-flight came in low over the town of Mers-el-Kebir to its attack.

The first torpedo is reported to have struck the *Dunkerque* amidships on her port side, but it did not explode. The second, which would have hit the ship, exploded under a tug close to her, which it blew into the air. The third torpedo was dropped too close and did not therefore explode, although it appeared to be going to hit.¹ While making its get-away, the sub-flight was engaged by French fighter aircraft.

It was remarked that while the *Provence*, aground with her quarterdeck awash, opened fire with A.A. guns, there was none from the *Dunkerque*.² The Skua escort of the third wave had many "dog fights" with French fighters, which, although they easily out-manoeuvred our aircraft, did not press home their attacks. One Skua, damaged in combat, made a forced landing on its return, the crew being picked up by the *Vidette*. There were no casualties, although several aircraft were damaged by gunfire.

As at least five certain and two possible hits were estimated to have been obtained on the *Dunkerque*, the Flag Officer, Force "H", was satisfied that she had been put out of action for at least a year. Admiral Somerville's conclusion was correct, but the damage was due to the bombardment of 3rd July and the explosion of the *Terre Neuve's* depth charges on the 6th. Though possibly 5 or 6 torpedoes may have hit their mark, there seems no doubt that none of them exploded—an example of the extreme difficulty of gauging results of attacks by fast-moving aircraft, amid the smoke and distraction of battle.

Force "H", having accomplished its task, returned to Gibraltar at 1830, 6th July.

¹ This torpedo was returned in 1943.

² It was confirmed by Captain Tanguy in 1943 that the *Dunkerque* did not open fire.

CHAPTER II

(*Battle Summary No. 6*)

The Bombardments of Bardia

June 1940-January 1941

15. BARDIA: DESCRIPTION AND IMPORTANCE (*Plan 3*)

THE PORT of Bardia, the only sheltered anchorage in Libya east of Tobruk, lies half-a-dozen miles from the Egyptian border. The town, including various military offices and barracks and the wireless station, stands on cliffs some 300 feet high north of the little harbour. Between the cliffs by the Wadi Jerfan, a stream which runs into the harbour from the westward, there were storehouses and workshops and the water-pumping station. Other stores and workshops stood on high ground west of the town and south of the Wadi Jerfan. The general layout is shown in Plan 3.

When Italy entered the war (11th June 1940) the place was believed to be strongly held and to be the chief supply base for the Italian forces on the frontier. Situated within 250 miles of Admiral Sir Andrew Cunningham's main base at Alexandria, it invited the attentions of the Mediterranean Fleet from the outset, and in fact suffered three heavy naval bombardments between June 1940 and January 1941.

The circumstances and objects of each bombardment were different. The first, on 21st June 1940—only eleven days after the Italian declaration of war—was carried out by three cruisers with the French battleship *Lorraine* and some destroyers, in order to "destroy military objectives." Two months later, the Italians seemed about to advance into Egypt, and on 17th August three battleships and a cruiser again attacked Bardia and the neighbourhood, partly to "cause material damage and disturbance" to the enemy's massed troops and stores, and partly to test the arrangements for working with the Army and the Royal Air Force. A third bombardment by three battleships and some destroyers took place on 3rd January 1941 in direct support of an attack by General Wavell's forces, which captured the port the following day.

The Italians were believed to have three or four guns of 6-inch to 8-inch calibre on Point Bluff, the south cliff (4 on the plan), and a similar battery on the cliff north of the harbour near the wireless station, besides mobile howitzers and some long-range anti-aircraft guns, of which the positions were unknown. But, as it turned out, the only opposition to the bombarding squadrons came in August from mobile guns (probably), and in January from 4·7-inch guns on Point Bluff. There was also a strong post at Fort Capuzzo, about 10 miles south of Bardia close to the Egyptian border, adjoining Amseat, the nearest Italian airfield. At Tobruk, some 70 miles to the westward, the Italians had submarines and considerable air forces, and in June some cruisers and destroyers.

16. BOMBARDMENT OF 21ST JUNE 1940 (*Plans 3 and 4*)

A force¹ under Vice-Admiral Tovey was detailed to carry out this operation. The object was to destroy military objectives at Bardia, and targets were assigned as follows:—

SHIPS	TARGETS
<i>Orion</i> (Vice-Admiral Tovey)	Area L: The battery on Point Bluff (No. 4 on plans). Area O: The Wadi Jerfan to a depth of 1 mile, especially the pumping station (No. 14).
<i>Lorraine</i> (French)	Any target within the areas assigned to the cruisers or any batteries that engage the force.
<i>Neptune</i>	Area P: Between the defended wall and the sea—W/T station (No. 11), barracks, etc.
<i>Sydney</i>	Area Q: A circle of 400 yards radius from the centre of the camp (No. 18).
<i>Stuart and Decoy</i> } <i>Dainty and Hasty</i> }	Not specified in the orders. These destroyers attacked targets in the <i>Neptune's</i> and <i>Sydney's</i> areas.

The ships were to be responsible for neutralizing fire on batteries near their areas, and the *Sydney* was to take over Area O, if the battery in Area L should require the whole attention of the *Orion*.

The method of execution laid down was described as a pre-arranged area shoot, using rapid fire for effect, covering the targets with "a heavy neutralizing fire". The four large ships were to spread a mile apart on the line of bearing 350°, and to steam past the targets at 18 knots on course 145°, about an hour after sunrise,² altering course individually if necessary to avoid punishment during the attack. The destroyers were to keep on the disengaged side, two by the head and two by the rear of the line; but eventually they also took part in the bombardment. According to the instructions, the range would be about 17,000 yards; as things turned out, it was some 12,000 to 14,000. Each cruiser was to be allowed 160 rounds of 6-inch with full charges (ammunition for the *Lorraine* not specified). Each large ship was to have an aircraft to observe her fire. The ships would retire from the coast at high speed after the shoot, reforming later as Admiral Tovey should decide, and going back to Alexandria.

Besides the bombarding forces, five destroyers were to carry out an anti-submarine sweep along the coast as far west as Tobruk, with two French cruisers and three more destroyers cruising off Tobruk in support, while there were submarines off Derna and Benghazi, still further west.

The squadron arrived off the coast at 0500, 21st June, a few minutes before sunrise. As he could not avoid the disadvantage of the dawn light, Admiral Tovey had decided to make the last 20 miles or so of his approach at that time, and to attack while the sun was still low enough to dazzle the Italian gunners on shore. The ships spread as the instructions prescribed, and stood south-westward towards Bardia in the order: *Orion*, *Lorraine*, *Neptune*, *Sydney*, with two destroyers on the outer bow of each wing ship, the *Stuart* and *Decoy* to port, the *Dainty* and *Hasty* to starboard. At 0548, 21st, the *Orion* opened

¹ CRUISERS:	<i>Orion</i>	eight 6-inch	Captain G. R. B. Back (Flag of Vice-Admiral Jack C. Tovey, C.B., D.S.O.)
	<i>Neptune</i>	eight 6-inch	Captain R. O'Connor
	<i>Sydney</i>	eight 6-inch	Captain J. A. Collins, R.A.N.
DESTROYERS:	<i>Stuart</i>	five 4.7-inch	Commander H. M. L. Waller, R.A.N.
	<i>Decoy</i>	four 4.7-inch	Commander E. G. McGregor
	<i>Dainty</i>	four 4.7-inch	Commander M. S. Thomas
	<i>Hasty</i>	four 4.7-inch	Lieut.-Commander L. R. K. Tyrwhitt
BATTLESHIP:	<i>Lorraine</i>	eight 13.4-inch	Capitaine de Vaisseau M. Rey
	(French)	fourteen 5.5-inch	

² Sunrise, 0514, Zone Minus 2. (Zone Minus 2 Time is used throughout this Chapter.)

fire, followed immediately by the other big ships, except the *Sydney*, which did not begin for another five minutes, by which time the squadron had altered to course 145°. The destroyers also started firing after the turn. At 0610 the squadron withdrew to the north-eastward.

The *Orion* started by ranging on the lighthouse on Point Bluff at about 13,500 yards' range: it stood close to the position of the Italian coast-defence battery, and at that time was the only object in her target area that she could see clearly through the haze. After turning to the south-easterly course at 0550, she fired on the battery position itself until it was clear that the battery was not replying. Then, at 0600, she shifted to her second area, the Wadi Jerfan, searching the wadi with blind ladders up and down, for communication with her spotting aircraft had not been established, and smoke and dust from the other ships' fire north of the harbour were drifting across her line of sight. The control officer reports that observation of fall of shot was difficult, except when salvos fell in the cliff face, and that the fall of shot in the same area from another ship—probably overs from the *Lorraine*—caused confusion.

The *Lorraine* attacked various targets in the left half of the *Neptune's* area, the town of Bardia, with her 13·4-inch guns, and perhaps silenced an anti-aircraft battery in that area with her 5·5-inch fire.

The *Neptune* ranged on the barracks in the left half of the town. As soon as she began firing for effect, however, the smoke of the explosions prevented her aircraft from observing, so she fired a few salvos blind, which, with the *Lorraine's* fire in the same quarter, raised clouds of dust that hid all that part of the target area. Accordingly, the *Neptune* shifted her fire right, by steps, to attack an anti-aircraft battery in the northern half of the area; and, regaining communication with her aircraft during this sweep, she fired seventeen 4-gun salvos with its help, and the battery ceased fire.

The *Sydney* fired at one target throughout, the camp in the centre of her area, starting a fire in one corner and probably causing losses among troops that were seen to leave the camp during the shoot. Smoke and dust obscured the target, so that she saw only half her shell bursts. An unfortunate attack by fighters of the Royal Air Force drove the *Sydney's* spotting aircraft out of action after her second salvo.

As for the destroyers, the *Stuart* and *Decoy*—now ahead of the line—fired into the *Neptune's* area, at the wireless masts and the barracks respectively—range about 12,000 yards. Smoke and dust made spotting difficult, and the *Decoy* fired only four salvos in consequence. On the other hand, the *Stuart* could distinguish her shell bursts from the *Neptune's* and *Lorraine's*, so continued firing until the smoke at last made spotting impossible. Her Captain remarks, "I must confess that in opening fire at this long range I had in view merely the moral effect on my own guns' crews and ship's company generally; the effective neutralizing fire produced, assuming 4·7-inch shells capable of doing material damage ashore, was therefore in the nature of a pleasant surprise."

The *Dainty* and *Hasty* were astern of the *Sydney*. The former attacked a house near the artillery headquarters, and believed she set it on fire; she also fired at the wireless masts—mean range for her shoot, 14,000 yards. Like the other destroyers, she found her fall of shot hard to distinguish from that of bigger ships, "but by no means impossible." The *Hasty* fired on the wireless station, probably the same building as one of the *Lorraine's* targets, and then shifted to a party of troops coming from the camp in the *Sydney's* area; she could not see her fall of shot when firing at that target, but says the *Sydney's* shells appeared to fall amongst the troops.

The number of rounds fired was as follows:—

SHIP	13·4-inch	6-inch	5·5-inch	4·7-inch
<i>Orion</i>	—	118	—	—
<i>Lorraine</i>	53	—	37	—
<i>Neptune</i>	—	134	—	—
<i>Sydney</i>	—	148	—	—
<i>Stuart</i>	—	—	—	39
<i>Decoy</i>	—	—	—	12
<i>Dainty</i>	—	—	—	56
<i>Hasty</i>	—	—	—	47

The Italians did not reply to the fire; indeed, the squadron could see no coast-defence guns in position. The only opposition came from anti-aircraft guns, which fired a few rounds at the spotting aircraft without effect.

Vice-Admiral Tovey subsequently remarked on the operation as follows:—

“Despite an excellent landfall, it was most difficult to obtain an accurate fix for gunnery purposes until objects ashore stood out sufficiently to act as ranging marks. With this data and information obtained from the air reconnaissance photograph and the plan in the intelligence report, it was possible to place the initial salvos with a reasonable degree of accuracy.

Owing to a W/T failure in *Orion's* aircraft, and *Sydney's* aircraft being shot up by friendly fighters, observation from *Lorraine's* and *Neptune's* aircraft only was effective. The dust and smoke produced after the targets had been under fire for quite a short time made both aircraft and direct observation very difficult, and a form of searching and sweeping fire was used in several cases.

The fact that the anti-aircraft batteries were apparently silenced early on in the engagement cannot be taken as any conclusive evidence of the neutralizing effect on shore batteries; because, however resolute their gunners might be, it must have been apparent our aircraft were for reconnaissance purposes only, and would remain outside their effective range, and further engagement of them was a waste of time.

No other shore batteries opened fire or could be seen from the bombarding squadron.

All ships had very confused ideas of the identity of aircraft in the vicinity, uncertainty being increased by the unfriendly attack on *Sydney's* aircraft by Royal Air Force fighters. . . . “When shore-based aircraft are sent in support of ships, details of the air co-operation should be forwarded to the ships concerned.”

The Commander-in-Chief called this bombardment “a useful minor operation, in which the damage caused fully justified the ammunition expended.” So far as could be judged from air photographs and from what the ships could see at the time, the squadron destroyed some ammunition and other storehouses in the Wadi Jerfan, blew up an anti-aircraft battery's ammunition dump, and damaged or set fire to barracks and other government buildings in and near the town.

17. BOMBARDMENT OF 17TH AUGUST 1940 (*Plans 3 and 5*)

By mid-August, 1940, there were indications that the Italians were about to launch an offensive across the Egyptian border, and it was decided to carry out a bombardment, with the object of helping the army by doing “as much damage as possible to the material and morale of Italian military concentrations”—troops, guns and stores then collecting at Capuzzo and in the Bardia neighbourhood. On this occasion the Commander-in-Chief, Admiral Sir Andrew Cunningham, himself took command.

The bombarding ships¹ were organised in two forces, as follows, with their targets:—

SHIPS	TARGETS
Force "A"	
<i>Warspite</i> (Flag, C.-in-C.)	15-inch: The Capuzzo concentration area. 6-inch: Any visible target suitable for direct fire near Marsa-el-Ramla.
<i>Kent</i>	The gun position area west and north-west of Marsa-el-Ramla.
Force "B"	
<i>Malaya</i> (Flag, Rear-Admiral Pridham-Wippell)	15-inch: Bardia ammunition dump area (targets 8 and 15 and a dump north-east of No. 15). 6-inch: Targets 3 and 11 in Bardia.
<i>Ramillies</i>	15-inch: Target No. 18, near Bardia. 6-inch: As <i>Malaya</i> .

Rear-Admiral Pridham-Wippell had discretion to shift the fire of his two ships to targets near the Wadi Jerfan or shipping in the harbour, or to the reported coast-defence battery (No. 4 on the plans), should it open fire; he might also fire on suitable targets south of Bardia.

The spotting aircraft had discretion to spot fire on to the most suitable target in the area allotted.

A forward observing officer was ordered to observe from a post at Sollum, but the reports do not mention that his services were employed.

A pre-arranged area shoot was ordered, the ships to use direct fire, but to cover their target areas with blind searching and sweeping fire should dust hide the targets. Having closed the coast together from the north-eastward, the two forces were to part company some 20 miles off-shore from Bardia at 0540, an hour before sunrise, and to begin their respective bombardments at 0700, steaming southerly courses past the targets at 15 knots. Three destroyers with T.S.D. sweeps were to accompany each force, while six more destroyers carried out an anti-submarine search to the eastward.² The capital ships were each to be allowed 60 rounds of 15-inch, the *Warspite* with full charges, the other two ships with reduced charges for their shorter range, and 120 rounds of 6-inch with full charges; the *Kent* was to have 100 rounds of 8-inch with reduced charges. The ships were to fire 1- or 2-gun salvos for ranging, and 4-gun salvos when firing for effect, or broadsides with the 6-inch guns. At the end of the shoot, the bombarding forces would haul round to the north-eastward and rejoin.

Royal Air Force fighters were to protect the two ships firing at Bardia and the *Kent*, as well as their spotting aircraft, which had orders to stay near their ships for safety's sake and not to cross the coast. The *Warspite's* aircraft was to work from near Sollum, to the southward, protected by naval aircraft landed from the *Eagle*. The operation orders warned ships to expect large-scale attack by Italian aircraft.

¹ BATTLESHIP: <i>Warspite</i>	eight	15-inch	Captain D. B. Fisher, C.B.E. (Flag of C.-in-C.,
	eight	6-inch	Admiral Sir Andrew B. Cunningham, K.C.B.,
			D.S.O.)
CRUISER: <i>Kent</i>	eight	8-inch	Captain D. Young-Jamieson
BATTLESHIPS: <i>Malaya</i>	eight	15-inch	Captain A. F. E. Palliser, D.S.C. (Flag, Rear-
	twelve	6-inch	Admiral H. D. Pridham-Wippell, C.B.,
			C.V.O.)
<i>Ramillies</i>	eight	15-inch	Captain H. T. Baillie-Grohman, D.S.O., O.B.E.
	twelve	6-inch	

² As a preliminary precaution also, four destroyers carried out an anti-submarine sweep in Sollum Bay during the dark hours of 15-16th August. The *Junco* sighted an E-boat running to the northward, a few miles east of Bardia, about 0300 on the 16th.

The shoot was carried out as arranged, Rear-Admiral Pridham-Wippell's two ships opening fire on the targets at Bardia a few minutes before 0700, and Sir Andrew Cunningham's ships beginning farther south just after that time. This proved a little too soon, for ground mist hid the targets from the spotting aircraft for the first three or four salvos. Low clouds also hindered spotting at times, as did dust raised by the fire of the ships off Bardia. The bombardment finished at about 0720, when both forces withdrew north-eastward, rejoining an hour later.

The *Warspite* fired at first (15-inch) on an area of 1,200 yards diameter with Fort Capuzzo as centre at a range of nearly 24,000 yards. The low mist delayed the observer in identifying the proper target, so that six salvos were wasted; but after that she dropped several shells into or round the fort. Then she shifted her fire, by a previously worked out switch, to a circle of 2,000 yards diameter 2 miles northward, where a concentration of troops and guns had been reported. Firing for effect immediately, without ranging, she dropped every salvo on this target within 300 yards of its centre. Aerial reconnaissance, however, showed no sign of the reported enemy, so fire was shifted back to Fort Capuzzo with the remaining 15-inch rounds allowed. Her 6-inch guns fired on Fort Ramla, an old work at the head of the wadi, in which stores and mechanical transport had been reported, at a range of 10,000 yards. The seventh salvo hit the fort, but smoke and dust then preventing spotting, she ceased fire at the twelfth salvo.

The *Kent*, following astern of the *Warspite*, attacked gun positions, ammunition dumps, and stores by the wadis west and north-west of Marsa-el Ramla. There being no suitable mark to aim at in the area, the *Kent* used indirect fire throughout. Cloud interfered with aircraft spotting; and at first the observer reported the fall of shot from the *Warspite's* 6-inch guns, which were firing at the old fort a little southward of the *Kent's* area. The eleventh salvo found the registration point, however, after which the ship fired twenty-three salvos for effect at ranges between 12,000 and 16,000 yards, starting several fires near a wadi in the south part of the area.

The *Malaya* fired two-thirds of her allowance of 15-inch at ammunition or store huts south-west of Bardia harbour (target No. 8 on the plans), and the rest at similar targets in the Wadi Jerfan (targets 9, 12 and 13)—ranges between 16,000 and 12,000 yards. Ground mist prevented observation at first, but the guns made good practice at the first target with the later salvos. When shooting into the Wadi Jerfan, however, the *Malaya* found that the dust raised by this fire, and by her own 6-inch and both natures of the *Ramillies'* fire farther north, made aircraft spotting almost impossible, though she scored some hits. With her 6-inch guns the *Malaya* fired at the south part of the town, where the principal barracks stood; but she could not see the fall of shot ("as had been expected", remarked Captain Palliser), and did little damage.

The *Ramillies* fired at target 18, the camp west of the town, which the *Sydney* had successfully attacked on 21st June, and scored half-a-dozen hits on camp buildings or workshops. Her 6-inch guns fired at the wireless station, doing some slight damage.

Rear-Admiral Pridham-Wippell stated that he altered the course of his ships to close the range, because 6-inch salvos from the *Ramillies* were seen to hit the cliffs below their target. He said also, "It was fortunate indeed that there was a fresh breeze blowing from the north-west to prevent the sandy dust and smoke from hanging too badly over the various targets. As it was, observation was much hindered by these, by low cumulus, and on first opening fire, by ground mist."

The numbers of rounds fired were as follows:—

SHIP	15-in.	8-in.	6-in.
<i>Warspite</i>	60	—	47
<i>Kent</i>	—	91	—
<i>Malaya</i>	62	—	104
<i>Ramillies</i>	63	—	123

Guns on shore at Bardia fired a few rounds at the *Malaya* and *Ramillies* early in the bombardment and after the ships had ceased fire and turned away, but nothing fell nearer than 1,000 yards from the ships. No flashes were seen, and the guns were believed to be mobile pieces of about 4-inch calibre. The spotting aircraft met with no opposition, apparently, either from enemy fighters or from anti-aircraft fire; nor did the Italians attack the ships from the air until some four hours after the bombardment, when they dropped a number of bombs without effect.

The material effect of the bombardment could not be fully assessed. But reconnaissance and photographs from the air and prisoners' statements showed that buildings were destroyed or damaged at Fort Capuzzo and in the Bardia area, and that dumps of stores were set on fire.

Commenting on the operation, the Commander-in-Chief remarked:—

"This operation was undertaken when considerable Italian concentrations had appeared near the Western Desert frontier, and an advance into Egypt seemed imminent. My object was to cause material damage and disturbance to the enemy's forward areas. The operation also provided a useful test of arrangements made for co-operation with the Army and Royal Air Force.

"The choice of zero time for the operation is of some interest, as it required the balancing of two factors:—

a. Time after first light to be sufficient for fixing and for the usual morning mist to clear.

b. Time not to be so late that the superior numbers of enemy fighters would be up to oppose our spotting aircraft.

In the event, the time chosen proved somewhat early, and all spotting aircraft had difficulty in spotting the initial salvoes, due to mist.

"A very satisfactory feature of the operation was the Royal Air Force fighter co-operation assisted by Fleet Air Arm Gladiators. This resulted in the destruction of eleven certain and one probable enemy aircraft.

"The Italians have shown themselves skilful in dispersing mechanical transport and stores over wide areas in the desert; and the targets offered do not justify a repetition of this type of operation with heavy ships so long as warfare in the Western Desert remains static."

18. H.M.S. *Ladybird*, 24TH AUGUST 1940 (Plan 3)

An interesting minor bombardment, which must have considerably startled the Italians, was carried out by H.M.S. *Ladybird* (Lieutenant-Commander J. F. Blackburn) during the night of 23rd/24th August. The object of the operation was the destruction of shipping in Bardia Harbour. The *Ladybird* went right into the harbour, replying to enemy batteries which unsuccessfully engaged her, and stopping short of the jetty on the northern side, deliberately swept the whole harbour with searchlights. Unfortunately, no shipping was present, so Lieutenant-Commander Blackburn opened fire on the buildings in the Wadi Jerfan area. After some twenty minutes the *Ladybird* left harbour,

engaging buildings on the northern cliff and silencing a small gun. As she cleared the harbour mouth, shore batteries came into action again; but, though closely straddled, she withdrew under smoke uninjured.

The Commander-in-Chief subsequently remarked that the *Ladybird* was "well and coolly handled", and that the attack must have had considerable moral effect on the enemy.

19. BOMBARDMENT OF 3RD JANUARY 1941 (Plans 3 and 6)

On 3rd January 1941 ships of the Mediterranean Fleet again bombarded the Bardia neighbourhood. This bombardment was of a different nature to those described in the previous sections. The Italians had made their bid to invade Egypt in September 1940; they only got as far as Sidi Barrani—some 50 miles beyond the frontier—and there they remained for nearly three months. In December General Wavell was strong enough to launch his offensive, and by 3rd January 1941 the Army was converging on Bardia from the south and south-west.

In these circumstances a bombardment was carried out in order to "neutralize and harass the sector north of the main Bardia-Tobruk road, in which large concentrations of mechanical transport and tanks had been reported and to prevent the formation of a counter-attacking force", while the Army and Royal Air Force attacked Bardia from the west and the south.

The Commander-in-Chief, Mediterranean (Admiral Sir Andrew Cunningham), again personally directed the operation. The bombarding forces¹ and their targets were as follows:—

SHIPS	TARGETS
FORCE "A"	
<i>Warspite</i> (C.-in-C.)	15-inch: The Wadi Raheb (reference point A on plan).
<i>Valiant</i>	15-inch: The south-west sector of the naval target area (B on plan).
<i>Barham</i>	15-inch: The south-east sector, near the village of Hebs el Harram (C on plan).
Secondary armaments of capital ships and <i>Janus</i> , <i>Junco</i> , <i>Griffin</i> , <i>Ilex</i> and <i>Greyhound</i>	At the discretion of Commanding Officers:— (i) Counter-battery fire, if the batteries on Point Bluff should fire at the ships (E on plan). (ii) Suitable direct-fire targets in the area. (iii) To sweep up the Wadi Raheb.
FORCE "W"	
<i>Terror</i> (monitor); <i>Aphis</i> , <i>Ladybird</i> , <i>Gnat</i> (gunboats)	These ships were "to maintain intermittent harassing fire" in the naval area from daylight to 4 p.m. But the <i>Terror</i> should cease fire during the shoot by Force "A", the gunboats then going close in to engage suitable targets in the Wadi Raheb.

Force A was to carry out two runs past the target areas at 15 knots on north-westerly and south-easterly courses, at ranges between 12,000 and 18,000 yards, the capital ships in line ahead, the five destroyers with T.S.D sweeps streamed. The *Warspite's* 15-inch guns and the destroyers ahead were to be responsible for counter-battery fire during the approach before the secondary armaments came within range. Each capital ship was to be allowed 40 rounds of 15-inch with reduced charges each run past the targets, firing 2-gun salvoes whilst ranging, 4-gun salvoes for fire for effect. The 6-inch and 4.5-inch batteries were to have 120 rounds each run, and each destroyer 100 rounds. The first 15-inch salvoes were to be deliberately short and on the side away from British troops.

¹ See Appendix H.

The spotting aircraft were to call for fire "on the most favourable target in the area," and on a fresh target after any target area had been "well hit." If air spotting should fail, the salvos were to be spread to cover the whole area.

Besides the ships firing, Admiral Cunningham had in company the *Calcutta* as anti-aircraft guardship and the *Nubian*, *Mohawk*, *Dainty* and *Voyager* as a screen, the two first-named destroyers serving also as anti-aircraft guardships. The *Illustrious* during the bombardment was to cruise in the offing with the *Gloucester*, *York* and four destroyers, her aircraft providing anti-submarine patrols and fighter protection for the firing ships and their spotting aircraft.¹

In order to have good light for fixing the range and for aircraft spotting, the hour chosen for the shoot was between 0800 and 0900, by which time the land artillery, the Air Force, and the *Terror* and gunboats had been in action for some time. As the squadron approached Bardia from the south-eastward, the *Warspite* trained her turrets on the battery on Point Bluff until her 6-inch guns were within range, but the battery did not open fire. The three capital ships began firing into their proper target areas together at 0810 while steering course 330°, and the five destroyers joined in a few minutes afterwards. At 0830 the squadron altered to the opposite course, opening fire again about ten minutes later and ceasing at 0854, soon after which the ships turned north-eastward to join the *Illustrious* and her consorts.

The *Warspite* began by "shooting in" to her reference point in the Wadi Raheb at some 16,000 yards range, shifting then to two concentrations of mechanical transport and stores nearby, as they were pointed out in succession by her spotting aircraft, and finishing her ammunition allowance for the first run in ten minutes' firing. In the second run she fired on two lots of mechanical transport further up the Wadi at a range of about 15,000 yards. Meanwhile, her 6-inch guns had fired a few salvos at an encampment on the cliff top near Hebs el Harram; they twice engaged the Italian battery on Point Bluff; and they fired a "blind ladder" up the Wadi Raheb—the ranges for the 6-inch guns being between 9,000 and 11,600 yards.

The *Valiant* fired on one concentration of mechanical transport in the first run, and on three successive targets, including some tanks, in the second run. With her 4·5-inch guns she engaged the battery for a few moments, and twice fired ladders up and down the Wadi Raheb.

The *Barham* fired on two lots of mechanical transport near Hebs el Harram in the first run; but finding no suitable targets near her reference point in the second run she fired at some mechanical transport on the south side of the Wadi Raheb. Her 6-inch guns fired on the battery in the first run, and one salvo up the Wadi Raheb; they fired on the battery again in the second run.

The destroyers fired first up the Wadi Raheb, at a range of 11,700 yards, laddering up to a depth of 3,500 yards. When the battery on Point Bluff opened fire on the squadron, at about 0820 they shifted to that target, as did all the big ships' secondary armaments; and they engaged the battery again during the second run. Four destroyers worked as a divisional concentration, and the *Greyhound* as a single ship.

The numbers of rounds fired by the capital ships were as follows:—

SHIP	15-in.	6-in.	4·5-in.
<i>Warspite</i>	96	116	—
<i>Valiant</i>	79	—	240
<i>Barham</i>	71	154	—

The extra rounds expended by the *Warspite* were fired against the battery on Point Bluff between the runs and after the bombardment ceased.

¹ The Royal Air Force were to provide fighter patrols over Bardia.
(SO 7437)

Apart from some anti-aircraft fire against the British spotting aircraft at the opening of the bombardment, the only opposition came from four 4·7-inch guns on Point Bluff. This battery opened fire about 0820 some ten minutes after the first run began; but it was quickly silenced for the time being, in a cloud of dust, by the 6-inch and 4·5-inch fire of the big ships and by the destroyers' guns, as described above. It opened again during the turn, only to be silenced once more by the destroyers, which had altered course some minutes before the capital ships, while the *Warspite* fired three salvos of 15-inch as she turned. The same sort of thing happened in the second run; and Sir Andrew Cunningham considered that the battery was resolutely fought, its guns firing whenever the surrounding dust cleared away. Finally, as the ships steered away from the coast after the bombardment, two of the four Italian guns continued to fire at 19,000 yards, splinters hitting the *Warspite* and *Barham*, on which the *Warspite* and *Valiant* fired a few rounds of 15-inch from their after turrets. Admiral Cunningham remarked that this battery thus succeeded in diverting part of the fire of the heavy guns from their proper targets, and that a cruiser was wanted for counter-battery smothering fire; but the only two cruisers available were required to support the *Illustrious*. He said too that "this battery, on the edge of a steep cliff with a flat plateau behind, might well have been fired at all day by the battle fleet without being hit except by a fluke."

The bombardment succeeded in its principal object, for the moral effect of the ships' fire sent the enemy to ground at once. They hardly moved in that northern sector all day; indeed many stayed in their shelters to be taken prisoner when the troops arrived the day following. The material effect was less positive. Although the weather proved ideal for aircraft spotting and communication was satisfactory, the featureless nature of the country somewhat hampered the observers, especially in the *Valiant's* area, whilst smoke and dust clouds covered the targets in the latter part of each run. Furthermore, the dispersed mechanical transport, tanks, and dumps of stores made only moderate targets for 15-inch guns; and the dust raised by the 15-inch fire was so thick that the secondary armaments and destroyers' guns had to confine their attention almost entirely to counter-battery work and to "blind ladders" up and down the Wadi Raheb. Still, the squadron succeeded in destroying many lorries and probably a few tanks, besides disabling an anti-aircraft battery.

Summing up, the Commander-in-Chief subsequently remarked:—

"This operation was of interest because there have not been many occasions in history when the fire of the battlefleet has been concentrated on an area surrounded on three sides by our own troops.

"The naval role was to neutralize the whole of the northern sector, while the army attacked in the south-west. By fortunate timing, enemy mechanical transport columns were just starting to get on the move when the fleet bombardment started. There was no further move or sign of activity for the rest of the day.

"The gallant conduct of the enemy battery on Bardia cliff was noteworthy.

"Arrangements made with both other Services worked very satisfactorily."

CHAPTER III

(Battle Summary No. 7)

The Bombardment of Genoa

9th February 1941

20. PREPARATION

THE BOMBARDMENT of Genoa carried out on the 9th February 1941 by Force "H"¹ under the command of Vice-Admiral Sir James Somerville was an operation to which great importance was attached by the Admiralty. Its outstanding feature was the extreme care and foresight shewn in the Operation orders issued by the Flag Officer, Force "H". Nothing was left to chance², every precaution was taken which could contribute to the element of surprise; detailed information was given as to the route to be followed, and times of alterations of course and speed, so far as they could be foreseen; careful instructions were included as to the targets and their priority under alternative circumstances³, while particular attention was paid to the W/T organisation and signal communications between the bombarding ships and spotting aircraft. The orders were, moreover, sufficiently flexible to be readily adapted to the somewhat changed circumstances which arose owing to the necessity of abandoning the first attempt on account of unfavourable weather conditions.

In the event, the operation ran exactly to schedule, and if the absence of important Italian naval units which had been reported in the port robbed it of some of the fruits which it had been hoped to gather, that was a circumstance entirely beyond the control of the British naval authorities.

¹ FORCE "H":

BATTLECRUISER:	<i>Renown</i>	six	15-inch	Captain R. R. McGrigor (Flag of Vice-Admiral Sir James F. Somerville, K.C.B., D.S.O.)
BATTLESHIP:	<i>Malaya</i>	eight	15-inch	Captain A. F. E. Palliser, D.S.C.
A/C CARRIER:	<i>Ark Royal</i>	sixteen	4.5-inch	Captain C. S. Holland
		30 T.S.R.		
		24 Fighters		
CRUISER:	<i>Sheffield</i>	twelve	6-inch	Captain C. A. A. Larcom
DESTROYERS:	<i>Duncan (D.13)</i>	four	4.7-inch	Acting Captain A. D. B. James
	<i>Isis</i>	four	4.7-inch	Commander C. S. B. Swinley, D.S.C.
	<i>Encounter</i>	four	4.7-inch	Lieut.-Commander A. V. St. J. Morgan
	<i>Jupiter</i>	six	4.7-inch	Lieut.-Commander N. V. J. T. Thew
	<i>Fearless</i>	four	4.7-inch	Commander A. F. Pugsley
	<i>Foxhound</i>	four	4.7-inch	Commander G. H. Peters, D.S.C.
	<i>Foresight</i>	four	4.7-inch	Commander J. S. C. Salter
	<i>Fury</i>	four	4.7-inch	Lieut.-Commander T. C. Robinson
	<i>Firedrake</i>	four	4.7-inch	Lieut.-Commander S. H. Norris, D.S.O., D.S.C.
	<i>Jersey</i>	six	4.7-inch	Lieut.-Commander A. F. Burnell-Nugent

² Unless weather conditions were very favourable, the latter stages of the approach to Genoa carried out in bright moonlight would reduce very considerably the prospects of achieving surprise. This disadvantage had to be accepted, owing to the urgency of the operation.

³ See Appendices K, L and M and Plan 9.

21. THE FIRST ATTEMPT, 31ST JANUARY-4TH FEBRUARY 1941

Towards the end of January 1941, intelligence reports had indicated the presence at Genoa of possibly two battleships and one 8-inch cruiser, and a similar force, with two or more 6-inch cruisers at Spezia. It was decided to bombard the port of Genoa and the objects of the bombardment, which was to be known as operation "Result", were defined as follows:—

1. To destroy Italian battleships and/or cruisers, if present;
2. To lower Italian morale;
3. To divert Italian naval and air activity to North Italy;
4. To damage war industries, supplies, shipping, etc.

Force "H" left Gibraltar accordingly on 31st January 1941, with the intention of carrying out the bombardment on 3rd February. Air attack on the important dam on the River Tirso (lat. 40° 02' N., long. 8° 54' E.), in Sardinia, by torpedo bombers from the *Ark Royal* was to be carried out on the 2nd February as a diversion. The Tirso dam was attacked¹, but the weather then deteriorated so seriously that Admiral Somerville decided to postpone the bombardment, and returned to Gibraltar, where he arrived on the 4th February.

That afternoon, an enquiry as to the earliest possible date on which operation "Result" could again be attempted was received from the Admiralty. To this Admiral Somerville replied that if the urgency of the operation justified dispensing with additional "cover" by means of an interim sweep to the west of the Balearics, and if the chances of detection during a moonlight approach were accepted, the operation could probably be commenced on 6th February.² If full precautions were to be taken to achieve surprise, the 20th February appeared to be the earliest suitable date.

During the night the Admiralty informed him that it appeared that an expedition was then being prepared at Genoa, probably against the Balearic Islands, and consequently it was most important that operation "Result" should be carried out as soon as possible.

22. PLAN OF OPERATION (Plan 7)

On 5th February, a conference of Senior Commanding Officers and Staff Officers was held by Admiral Somerville to discuss the amended plans for the operation, and also the question of security, which had been brought into prominence by a disturbing incident which had just been reported to the Admiral. On the 30th January in the Theatre Royal, Gibraltar, a rating of H.M.S. *Sheffield* had been informed by five ratings whom he was unable to identify, that the *Sheffield*, with the *Renown*, *Malaya*, *Ark Royal* and destroyers, would be proceeding to bombard Genoa on 2nd February. On investigation, it seems probable that this was no more than an accurate guess,³ but in such a place as Gibraltar any leakage of information might be promptly conveyed to the enemy, and the possible circulation of rumours of this sort naturally aroused apprehension.

¹ See Naval Staff History, *Mediterranean*, Vol. II.

² This was dependent on the repair of damage which several of the destroyers had sustained in the bad weather experienced during the first attempt. Admiral Somerville stressed the fact that owing to the distance involved it was essential that not less than ten destroyers should take part, in order that the screen could be worked in two reliefs (Gibraltar to Genoa, passing north of Balearic Islands: 845 miles).

³ Based on the embarkation of H.E. ammunition and exercises in bombardment communications and spotting which had been carried out.

As there was no definite evidence that the operation had been compromised, Admiral Somerville decided to proceed with it on the afternoon of 6th February, but in view of the possibility of a rumour having reached the Italians special precautions were taken to mislead them.

For this purpose orders were issued for a sweep against French merchant shipping in the western basin of the Mediterranean, and boarding and steaming parties from the *Resolution* were embarked in some of the destroyers taking part in the operation. The genuine orders for the bombardment, now termed operation "Grog", were sent to Commanding Officers in sealed envelopes, which were not to be opened until the ships were at sea.

The plan adopted by Admiral Somerville was to feint towards Sardinia from a position north of the Balearics during daylight on the 8th February, and to carry out a W/T diversion to the west of Sardinia that night. To increase the value of this feint, the Vice-Admiral, Malta, was requested to arrange with the Royal Air Force for two or three aircraft to bomb Cagliari or Alghero airfields at about 0300¹, 9th February, approaching from the westward and retiring in the same direction, in order to simulate aircraft from the *Ark Royal*. Owing to enemy action², however, no aircraft were available for this purpose, or even for reconnaissance in the Gulf of Genoa.

The actual bombardment was to be carried out by the *Renown*, *Malaya* and *Sheffield* at dawn on 9th February, while aircraft from the *Ark Royal* bombed the refinery at Leghorn³, and Skuas laid magnetic mines off Spezia.

23. DEPARTURE FROM GIBRALTAR, 6TH FEBRUARY 1941 (Plan 7)

To carry out the operation, Force "H" was organised in three groups. Group 1, consisting of the *Renown* (wearing the flag of Vice-Admiral Somerville), *Malaya*, *Ark Royal* and *Sheffield*, screened by Group 3, consisting of the *Duncan* (D.13), *Isis*, *Firedrake* and *Jupiter*, left Gibraltar at 1600, 6th February, and shaped course to the westward, as though covering a homeward-bound convoy which was forming up in the Straits at the time.

Visibility was good, except during rain squalls; moonset⁴ was at 0320, 7th February. After dusk, Group 1, altered course back to the eastward in small units, joining company again some 56 miles east of Gibraltar at 0300, 7th February.

Group 2, which consisted of the *Fearless* (Senior Officer, 8th Flotilla), *Foxhound*, *Foresight*, *Fury*, *Encounter* and *Jersey*, left harbour unobtrusively in units of one or two ships between 1200 and 1400, 6th February, and proceeded to the eastward as though on patrol or exercising. When out of sight of land they concentrated, and carried out an anti-submarine sweep at economical speed, while steering to rendezvous with Group 1 at 0830, 8th February, to the northward of Majorca.

¹ All times are Zone Minus 1 throughout this Chapter.

² Heavy air raids on Malta had been carried out on 5th February.

³ After careful consideration, it was held that unless accurate information of the positions of Italian battleships in Genoa and Spezia was available, a bombing attack on them was unlikely to be effective. The Vice-Admiral, Malta, had reported that it was improbable that this information would be forthcoming, and the decision was therefore taken to concentrate the air attack on the Leghorn refinery.

⁴ 1st quarter, 4th February; Full Moon, 12th February.

Sunset: 1856, 6th February; Sunrise: 0804, 7th February.

24. PASSAGE TO GENOA, 7-8TH FEBRUARY 1941 (*Plan 7*)

The passage through the western basin was uneventful. At 0730, 7th February, an A/S patrol was flown off, and maintained throughout the day, while the Fleet was steering to the eastward. The visibility was good, with a westerly wind, force 3; by 1100 the wind had dropped and there was a slight haze over the horizon, which limited visibility to 10-15 miles; this weather continued throughout the day.

The opportunity was taken to exercise all forms of A.A. armament, and six Skuas carried out dummy dive-bombing attacks on the Fleet. At 1155, in position latitude 36° 37' N., longitude 1° 21' W. (about 200 miles east of Gibraltar), the *Firedrake* investigated a contact and fired two depth charges. This contact was probably non-submarine.

The radar screen was clear all day, and it seemed probable that the Fleet was undetected.¹ Towards evening of the 7th, course was adjusted so as to pass between Iviza (the western island of the Balearics) and Majorca during the dark hours of the night.² At 0100, 8th February, course was altered to 340° for this passage, and four hours later to 035° to pass to the northwest of the Balearics. There was only one submarine alarm. At 0815, 8th, the *Duncan* dropped a depth charge in position latitude 40° 29' N., 2° 19' E. (about 50' north of the western point of Majorca), but the contact was subsequently considered non-submarine. A quarter of an hour later Group 2 joined up, as previously arranged.

The policy throughout the 8th February was to make ground to the northeast, remaining undetected if possible. An A/S patrol was flown off at 0720, and a fighter patrol at 0930, which were maintained throughout the day. These patrols were instructed to avoid being seen by merchant ships, and to give warning of their approach so that the course of the Fleet could be altered in time to avoid being sighted. Whenever an aircraft was detected by radar, course was immediately altered to the south of east, in order to give the impression that the objective was a target in Sardinia. It was not possible to escape detection entirely, and in the course of the day a total of six foreign aircraft probably sighted the Fleet.³

The *Ark Royal's* flying operations—in the course of which two fighters, a Skua and a Fulmar, crashed on deck while landing (fortunately, without injury to personnel)—were completed by 1800, 8th; and ten minutes later course was set to 090°, speed 18 knots, course being altered to 050° and speed increased to 21 knots at 1900.

Just at this time, all unknown to Admiral Somerville, the Italian Fleet was putting to sea with Force "H" as its quarry. The Italians had been aware of its departure from Gibraltar since 6th February, but no hint as to its intentions had reached them. The appreciation of the Naval Staff envisaged a raid on Sardinia or possibly the Ligurian coast, or perhaps the reinforcement of Malta by flying off aircraft. No sighting report was received on the 7th,

¹ The *Ark Royal* made an excessive amount of smoke which might have been seen a long way off, owing to the use of Trinidad oil; but it is now confirmed from Italian sources that no report reached them.

² Moonset was at 0445, 8th February, Zone Minus 1 Time.

³ 0800. Probably a civil aircraft on a routine run, steering towards Barcelona.

1055. A Farman 222, with French military markings, steering towards Toulon.

About 1155. An aircraft approaching from 027°, recognised by our fighters as a Martin 167.

1348. Aircraft detected by radar bearing 074°, 24 miles: sighted shortly afterwards, but our fighters failed to intercept, and it faded from radar screen bearing 194°.

1410. Two French military aircraft. The first made off as soon as warned by our fighters; the second not until warning shots had been fired ahead of her.

but next day some fighters which were thought to have come from a carrier¹, were reported south of the Balearics. Acting on this report, the battleships *Vittorio Veneto*², wearing the flag of the Commander-in-Chief (Admiral Iachino), *Cesare*³ and *Doria*³, with seven destroyers, sailed from Spezia at 1900, 8th; and the heavy cruisers *Trieste*⁴, *Trento*⁴ and *Bolzano*⁴, with three destroyers which were at Messina, were ordered to rendezvous at 0800 next morning in a position 40 miles west of Cape Testa (the northernmost point of Sardinia), after which the whole force was to cruise to the westward and await information from air reconnaissance.

It will be noted that the fleet could hardly have been better placed to intercept Force "H" on its withdrawal, had the enemy been precisely informed of its intentions.

25. FINAL APPROACH, 8-9TH FEBRUARY 1941 (Plans 7 and 8)

At 2320, 8th February, a fix was obtained which placed the *Renown* 25 miles 138° from Porquerolles light (latitude 43° 00' N., longitude 6° 12' E.), and course was shaped to the E.N.E. Some 200 miles to the southwestward the *Jupiter* and *Firedrake*, which had been previously detached, were carrying out a W/T diversion east of Minorca. to assist to cover this stage of the approach.

Page 31, line 17. After "stage of the approach" insert

About 3 hours later (0220), unsuspected by either side, Force "H" passed some 30 miles north of the Italian battleships from Spezia, then steering a south-westerly course for their rendezvous with the cruisers from Messina.

P.307/54. (Amendment No. 1.)

visible above the haze, silhouetted against the sky to the north-east of Rapallo, but it was not until 0649 that the headland of Portofino (latitude 44° 18' N., longitude 9° 13' E., 12 miles to the eastward of Genoa) could be dimly seen and identified. A fix was obtained at 0653, 9th⁵, and two minutes later course was altered to 290°—the bombardment course—and speed reduced to 18 knots. The coastline adjacent to Portofino Headland was completely shrouded in mist, and subsequent adjustments were made on bearings of Mount Fascia and Mount Penello (about 6 miles to the east and north-west of Genoa respectively).

So far, all had gone well: the long approach had been accomplished unobserved, and the all-important landfall effected. Within a few minutes the bombardment would commence. All that remained in doubt was whether the enemy battleships were present.

¹ It is not known what aircraft these were. Force "H" was well to the north and east of the Balearics at the time.

² Main armament: nine 15-inch, twelve 6-inch.

³ Main armament: ten 12.6-inch.

⁴ Main armament: eight 8-inch.

⁵ Sunrise was at 0733, 9th February, Zone Minus 1 Time.

⁶ This fix showed that the *Renown* was almost exactly in her anticipated position. Admiral Somerville remarks that "this was a remarkably accurate piece of navigation which reflects great credit on Commander Martin J. Evans, R.N., and was a most important, if not vital, contribution to the success of the operation". The navigational desiderata will be found in Appendix J.

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impression that the objective was a target in Sardinia. It was to escape detection entirely, and in the course of the day a total of six foreign aircraft probably sighted the Fleet.³

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At 0400 the *Ark Royal*, screened by the *Duncan*, *Isis* and *Encounter*, was detached to act independently, while her aircraft carried out bombing attacks on Leghorn and laid mines off Spezia. The remainder of Force "H" altered course to the N.N.E. for the Gulf of Genoa, and at 0628 high angle tracer shell observed in the direction of Spezia from the *Renown* indicated that the mine-laying was in progress. Seven minutes later, mountain tops were just visible above the haze, silhouetted against the sky to the north-east of Rapallo, but it was not until 0649 that the headland of Portofino (latitude 44° 18' N., longitude 9° 13' E., 12 miles to the eastward of Genoa) could be dimly seen and identified. A fix was obtained at 0653, 9th⁶, and two minutes later course was altered to 290°—the bombardment course—and speed reduced to 18 knots. The coastline adjacent to Portofino Headland was completely shrouded in mist, and subsequent adjustments were made on bearings of Mount Fascia and Mount Penello (about 6 miles to the east and north-west of Genoa respectively).

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Spotting aircraft¹ were catapulted from the *Sheffield* and *Malaya* between 0630 and 0707, and tuning-in commenced at 0655. At 0710, the *Renown's* spotting aircraft made the eagerly awaited report: there were no battleships to be seen.²

Three minutes later the *Renown* opened fire at the pre-arranged targets on the land.

26. BOMBARDMENT OF GENOA, 9TH FEBRUARY 1941 (*Plans 8 and 9*)

The scene off Genoa was almost dramatic in its contrasts. It was a calm Sunday morning, the foreshore hidden from view by the haze, above which the mountains stood out, turning from grey to rose in the rising sun: there was nothing to break the peace and silence. Suddenly at 0714 the *Renown* opened fire.

From the ships nothing could be seen of the city; fire was opened from navigational data, and the bombardment was carried out entirely by indirect fire³, at ranges between 23,500 and 18,000 yards.⁴

The opening salvoes from the *Renown* fell, as anticipated, south of Molo Principe Umberto, and were quickly spotted on to the Ansaldo works, marshalling yards and factories on both banks of the Torrente Polcevera. Numerous explosions and considerable fires were observed in this area. The target was then shifted to the commercial basin, where a big fire was started and a merchant ship hit. A salvo in the vicinity of the power station caused a particularly violent explosion, and an oil tank was observed to be on fire. The smoke from this tank and various warehouses prevented the spotting of several salvoes, but a little later rounds were seen to fall in the area west of Ponte Biagio Assereto and Ponte Caracciolo. The latter received the last salvoes fired in this area, which produced an explosion followed by a considerable fire. The target was again shifted and the electrical works appeared to receive a direct hit. Fire was then moved up the left bank of the Torrente Polcevera, and having crossed it salvoes were spotted directly on to the Ansaldo works, but by this time smoke rendered observation difficult. The secondary armament meanwhile fired at the area along the waterfront.

The *Malaya* engaged the dry docks and targets in their vicinity throughout. Heavy explosions were observed in the docks and among warehouses.⁵ Several salvoes could not be spotted owing to smoke: the last four were seen to fall among houses just north-east of the docks.

The *Sheffield's* opening salvoes were placed short in the sea, and were readily spotted. Having found the range, rapid salvoes were ordered and fire was directed at the industrial installations of the left bank at the mouth of the

¹ Spotting aircraft were provided as follows:—

Renown: Walrus from *Sheffield*.

Malaya: Swordfish from *Malaya*.

Sheffield: Walrus from *Sheffield*.

A Swordfish as stand-by spotter from *Ark Royal* was provided for each ship. All spotting aircraft had orders to land on the *Ark Royal* after the shoot.

² Actually the *Diulio* was in dry dock, but unfortunately she was not recognised.

³ To assist the observers in the spotting aircraft, a scale model of Genoa had been constructed secretly by Mr. L. F. Scillitoe, Commissioned Gunner, R.N., of the *Renown*, and transferred to the *Ark Royal*. Observers reported subsequently that, thanks to this model, the situation appeared to be entirely familiar when they arrived over Genoa, and they were able to identify their targets with the greatest ease. Air photographs of the port had been gridded up and lettered, and a copy was issued to each spotting aircraft and each firing ship.

⁴ Fire was opened at 21,000 yards: the range was closed to 18,000 yards by the time *Renown* had fired 30 salvoes: fire finally ceased at 23,500 yards.

⁵ The *Diulio* in dock was straddled, and several salvoes fell within 200 yards of her, but she was not hit.

Torrente Polcevera. Many fires and two big explosions were caused in this vicinity. Later, as smoke was obscuring the area, fire was shifted to a tanker under way off the port; but though three salvoes straddled, no actual hits were observed.¹

The only opposition encountered by the bombarding ships was from a shore battery mounting about two 6-inch guns, and by the spotting aircraft from long-range and close-range A.A. weapons. In both cases the fire was quite ineffective. During part of the bombardment, however, the two inshore destroyers were ordered to make smoke in order to hamper any further land artillery fire, and to conceal the composition of the bombarding force.

The order to "cease fire" was given at 0745, 9th²; spotting aircraft—after making a final signal "Magnificent"—withdrew to the *Ark Royal*, and the bombarding force shaped course to rendezvous with her some 35 miles to the southward (latitude 43° 48' N., longitude 8° 50' E.).

27. AIR ATTACKS ON LEGHORN AND SPEZIA, 9TH FEBRUARY 1941

In the meanwhile, the *Ark Royal*, after being detached at 0400, 9th February, had steered to the eastward. At 0505, when in position latitude 43° 19' N., longitude 8° 41' E. (about 70 miles to the westward of Leghorn and the same distance from Spezia), she flew off a striking force of 14 Swordfish (each armed with four 250-lb. G.P. bombs and sixteen incendiaries), followed by 4 Swordfish carrying magnetic mines. Later, the three stand-by spotting aircraft for the bombarding ships, with escorting fighters, and a section of Fulmars to patrol over the *Ark Royal* were also flown off.

The objective of the striking force was the Azienda oil refinery at Leghorn. Eleven aircraft dropped their bombs on this target; fires and one definite explosion were observed, but no clear estimate could be formed of the amount of damage inflicted.³ Only one or two H.A. guns opened fire when the attack started at about 0645, but some five minutes later the A.A. fire became severe. One of these aircraft failed to return.⁴

Two of the striking force, having mistaken their landfall, bombed alternative targets, one attacking Pisa airfield and the other Pisa railway junction.

While these attacks were in progress, three of the minelaying aircraft had made a gliding approach from over the town of Spezia, which was only partially blacked out, two laying mines in the western entrance, and one in the eastern entrance, of the harbour. The fourth approached from the opposite direction, and laid in the western entrance. Short-range A.A.

¹ This tanker had a fortunate escape. The *Foxhound* had asked "Permission to engage tanker", but unfortunately the word "tanker" was not received in the *Renown*. It was assumed that this request referred to shore batteries and it was approved, the shore battery being specified as the target in order to avoid the *Foxhound* joining in the bombardment and thereby confusing the spotting aircraft. Admiral Somerville stated that, had he been aware of the presence of this tanker, he would have sent the *Foxhound* to sink her.

² The following ammunition was expended during the bombardment:—

Renown: 125 rounds 15-inch H.E., 400 rounds 4.5-inch H.E.

Malaya: 148 rounds 15-inch C.P.C.

Sheffield: 782 rounds 6-inch H.F.

³ Subsequent reports indicated that the damage was disappointingly small.

⁴ This aircraft, manned by Midshipman (A) N. G. Attenborough, Temporary Midshipman (A) S. W. Foote, R.N.V.R., and Leading Airman G. W. Halifax, was last seen going into the attack, and it is thought it may have struck the balloon barrage. Balloon barrages were noticed at Leghorn over the town and west of the Azienda refinery along the coast; also at Genoa, by the Torrente Polcevera.

weapons of the Bofors type engaged the aircraft during their final approach, and there was also some A.A. fire from guns around the town, which appeared to be firing blind into the air.

By 0848 all spotting, minelaying and striking force aircraft, with the exception of the one reported missing, had landed on the *Ark Royal*, which then shaped course to rejoin the Flag. This was effected shortly after 0900, and by 0919 the whole force was steering 180° at 22 knots. Course was altered to 220 at 1000 and to 244° at 1035, but flying operations considerably reduced the speed of advance.

28. MOVEMENTS OF THE ITALIAN FLEET, 9TH FEBRUARY 1941 (*Plan 10*)

Meanwhile the Italian cruisers from Messina had joined Admiral Iachino west of Cape Testa, according to plan. One hundred and eighty miles to the northward, the last round had just been fired at Genoa. Indications during the night had pointed to Sardinia as the British objective, and the Admiral accordingly steered 230° at 18 knots, expecting to meet Force "H" to the westward of Sardinia in the course of the day. It was not till 0950—two hours after Admiral Somerville had started his withdrawal after the bombardment—that he received a signal informing him that enemy ships had bombarded Genoa at 0800, and ordering him to steer north¹; he at once altered course to 000°, and increased speed to 20 knots, stationing the cruisers five miles ahead. As he did so, another signal timed 0930 reached the flagship—that the enemy was retiring at 0905 along the coast to the westward. One other signal came in during the forenoon—at 1027—placing an enemy force with an aircraft carrier 40 miles south of Genoa at 0929. This signal gave no course, but the position indicated that the enemy was retiring in a southerly direction and the fleet held its course 000°. As time went on and no further news came in, Admiral Iachino began to get anxious. At 1235 he ordered the *Trieste* to fly off an aircraft to search to the north-west to within 20 miles of the French coast and then to Genoa²; and ten minutes later, altered course to 330°, increasing speed to 24 knots.³ This course might well have achieved contact with Force "H" an hour or so later; but at 1300 a signal came in reporting an enemy carrier 40 miles north-west of Cape Corse (the northern point of Corsica), steering 190° at 1045, and also three hostile vessels (type unknown) 75 miles W.S.W. of Cape Corse, steering 045°, at 1130.

"I deduced from these two reports", wrote Admiral Iachino, "that two enemy groups must have met shortly after 1200 to the westward of Cape Corse with the intention of escaping to the southward, passing a short distance from the western coast of Corsica. This appreciation of the enemy's movements was somewhat strengthened by the absence of sightings by any of our shore-based aircraft searching the Gulf of Genoa. At 1307 I therefore ordered the 3rd Division (the cruisers) to turn to 050°, and at 1315 I signalled the battleships

¹ This important message was sent at 0913 and received in the *Vittorio Veneto* at 0937. It then apparently took 13 minutes to reach the Commander-in-Chief. Though it was probably meant merely to stop his further progress to the westward (in compliance with the operation orders issued before sailing), it specified a definite course to be steered and Admiral Iachino had no choice but to obey. It ought to have been clear to the Naval Staff after receipt of the news a few minutes later that Force "H" was retiring to the westward, that the course north would probably take the fleet too far to the eastward and that there would be grave danger of losing its advantageous position between the enemy and his base; but no signal was made allowing the Admiral discretion to steer an intercepting course. A good example of too rigid tactical control from a distance.

² This aircraft passed some 50 miles ahead of Force "H" on its north-westerly run, and out of sight to the northward on its run towards Genoa.

³ This alteration is shewn on the Italian chart as taking place at 1300 (see *Plan 10*).

to turn together 60° to starboard, assuming course 030°." Actually, Force "H" was then about 65 miles almost due north. For the next hour and a half the distance between the two squadrons decreased, but at about 1430 they passed each other about 30 miles apart on roughly reciprocal courses. From that moment the chances of bringing Force "H" to action rapidly diminished.

Throughout the afternoon the fleet maintained this course, momentarily expecting to sight the enemy. Several messages from the Naval Staff tended to confirm that it was on the right track; but at 1532 there came a disturbing report that one aircraft carrier, two cruisers and nine destroyers had been sighted at 1300 in a position 65 miles west of Cape Corse.¹ A few minutes later (at 1540), however, masts were sighted fine on the starboard bow; there seemed no doubt that the enemy was in sight and the final preparations were made for action. But the masts soon proved to belong to a French convoy, and Admiral Iachino then came to the conclusion that the idea of the enemy's southerly retirement was false and that after all he had withdrawn along the French coast. He accordingly altered course to west at 1550 (24 knots); but it was too late. Force "H" was by that time some 60 miles to the south-westward. All that was seen was the wreck of an Italian bomber in the sea 70 miles west of Cape Corse, which according to the survivors had been shot down by seven enemy fighters some hours previously.

After a fruitless cast to the north, caused by a misleading enemy report, course was altered to the eastward at 1900. The fleet spent the night cruising in the Gulf of Genoa, and early in the forenoon of the 10th was ordered to return to harbour, the battleships to proceed to Naples and the cruisers to Messina.

29. RETURN PASSAGE OF FORCE "H" (*Plans 7 and 10*)

To return to Admiral Somerville. Throughout 9th February, Force "H" continued to make to the west-south-westward. At first the wind was light from the east; close protection for the *Ark Royal* was essential, since heavy air attacks were expected, and, as already mentioned, flying operations involved a considerable loss of ground.

Six fighters were kept over the fleet continually; these shot down one Cant 506 and one Cant 1007B in the course of the day.

From about 0930 till 1700 enemy aircraft were frequently detected², but no attack materialised, except one during the forenoon by two Fiat Br. 20; these dropped four bombs, which fell well astern of the *Ark Royal*.

At noon a convoy of seven merchant vessels, steering to the eastward was met in position latitude 43° 07' N., longitude 8° 08' E. It proved to consist of one Turk and six Frenchmen, outward bound, and was allowed to proceed.

¹ This was the first correct sighting report received in the *Veneto* since the first report received by the Admiral at 0950. Again the course was omitted.

² 0934 Two aircraft (radar bearing 060°, 27 miles) } withdrew before fighters could get in
0944 Cant flying boat sighted N.N.E. } touch.
1047 Cant 506B (radar bearing 070°, 40 miles): shot down by fighters.
1120 Two Fiat Br. 20 (radar bearing 350°, 30 miles): four bombs dropped from 12,000 ft.
well astern of *Ark Royal*.
1210 Formation of aircraft (radar bearing 160°): did not close.
1325 Cant 1007B shadowing astern: shot down by fighters.
1412 Several formations (radar bearing north-easterly): did not close.
1500 Shadower: chased by fighters and lost in cloud.
1651-1700 Several detected (radar bearing easterly): did not close.

By 1300 the weather had become very favourable to a successful withdrawal, the visibility having decreased and the sky become overcast with low cloud. The wind (force 1) had backed to north-east. During the afternoon, as already mentioned, the Force passed within 30 miles of the Italian battle-fleet, which, quite unknown to Admiral Somerville, had been hunting for him to the southward. At 1700 the last enemy aircraft faded from the radar screen, and for the remainder of the passage to Gibraltar it remained clear.

During the night of 9th February a course of 232° was steered at 17 knots to pass to the north-westward of the Balearics; and shortly after dawn on the 10th five Swordfish were flown off from the *Ark Royal* to carry out a search for shipping in the area between lines joining Cape Sebastian (latitude $41^{\circ} 52' N.$, longitude $3^{\circ} 10' E.$) to Minorca and Cape San Antonio (latitude $38^{\circ} 50' N.$, longitude $0^{\circ} 11' E.$) to Iviza. Five French and two Spanish ships were reported, but all except one—the *Maria*—were too close to Spanish territorial waters to allow boarding. The *Maria* was boarded by the *Foresight* and permitted to proceed.

At 0915, 10th, the *Firedrake* and *Jupiter*, the two destroyers which had carried out the W/T diversion on the night of the 8th, rejoined Force "H", and at 1425 the R.F.A. *Orangeleaf*, escorted by two A/S trawlers, was sighted off Iviza and ordered to return to harbour.¹ The course of the squadron was altered to 184° at 1300, and during the afternoon a search for merchant shipping was carried out by four aircraft in an area 50 miles from Spanish territorial waters between Valencia and Cartagena. One ship only was sighted—a Frenchman, close to territorial waters off Cape San Antonio.

Shortly after 1800, the *Ark Royal*, screened by three destroyers, was detailed to act independently for the remainder of the passage to facilitate training flights. The remainder of Force "H" altered course to the westward at 0230, 11th February, and, after carrying out various exercises, arrived at Gibraltar that afternoon.

30. ADMIRAL SOMERVILLE'S REMARKS

Commenting on the operation, Admiral Somerville remarked that it was evident that both ship and air bombardments had effected complete surprise, and that no precautions had been taken by the enemy to guard against an incursion into the Gulf of Genoa by Force "H". To this amazing lack of precautions must be attributed in a large degree the success of the operation, though the steps taken to provide cover and evade detection may have helped to produce the desired result.

The success of the bombardment² itself he attributed to meticulous care in the preparation of plans and the exercising of officers and men concerned, coupled with excellent navigation, which assured a successful issue once an approach had been achieved.

Apart from the material damage inflicted, this bombardment must have had a shattering effect on the morale of the people of Genoa, as it would have on the people of any other town whose defenders had been so negligent in the performance of their task.

¹ Arrangements had been made for the *Orangeleaf* to be off Iviza in case any of the destroyers should require to be fuelled.

² See Appendices N and O.

That the moral effect was great—not only in Genoa, but throughout Italy—has since been confirmed by the Italians; but the negligence of the defenders had not been so grave as appeared to Admiral Somerville when he wrote his report.¹

The problem was really analogous to that presented to the Grand Fleet in the First World War by the bombardment of such places as Hartlepool and Scarborough. Against “tip-and-run” raids, as was then recognised, it was unlikely that the Fleet would be able to intervene in time to prevent the bombardment, but it could hope to intercept the raiders on their return passage—with results which would deter further attempts of the sort.

Actually, the Italians had been much concerned about the defence of Genoa for many years, but they had been unable to find a satisfactory solution. The coast line did not permit of siting batteries in advanced positions, and the depth of water precluded the effective use of mines. The shore defences which existed at the time of the bombardment, *viz.*, two pontoons, armed respectively with two 15-inch and two 8-inch guns, a coastal battery of medium calibre and an armoured train had been organised in 1935, at which time it was laid down that the presence of mobile forces—naval and air—was essential.

When the test came the attacking ships were not visible to the batteries, owing to mist, and—as was not improbable—the naval and air forces were not on the spot; but it is to be noted that the naval forces came very near to intercepting the attackers on their return passage, and it seems probable that, but for the weather, the Air Force too might have effectively intervened.

¹ At this time Admiral Somerville was unaware of how nearly he had been intercepted by numerically superior forces in the afternoon of 9th February.

CHAPTER IV

(*Battle Summary No. 19*)

The Bombardment of Tripoli

21st April 1941

31. MEDITERRANEAN SITUATION, APRIL 1941¹

AFTER THE GOVERNMENT'S decision in March 1941 to send military aid to Greece, an unfavourable situation developed in Cyrenaica, which had been overrun the previous winter by a brilliant offensive launched by the Commander-in-Chief, Middle East (General Sir Archibald Wavell). The Army, already weakened by the despatch to Abyssinia in December 1940 of an Indian division, was now called on to provide for this new commitment an expeditionary corps of two infantry divisions, together with mechanized and other troops. Germany, meanwhile, had been massing in North Africa strong reinforcements of infantry and armoured divisions to stiffen the battered remnants of the Italian Army.

Although these movements were being watched, the enemy's attack was delivered with surprising suddenness in a blow of concentrated intensity and rapidity. It began on 2nd April, and our depleted forces holding positions at El Agheila were immediately driven back. Pressing on without pause the enemy soon reached Benghazi and Mechili. Benghazi was hastily abandoned, while at Mechili the 2nd Armoured Division was surrounded and lost over 2,000 men and all their equipment. After falling back on Derna, the Army continued its retreat to the Egyptian frontier, leaving a garrison to defend Tobruk, which was invested by 11th April. Thus, in the short space of fourteen days, all the gains of the winter campaign, except the strong point of Tobruk, were lost and the defence of Egypt had become a perilous anxiety.

Elsewhere the military situation was equally depressing, for Greece and Yugo-slavia had been invaded by overwhelming German forces on 6th April. Ten days later, after the total collapse of Yugoslav resistance, it was decided to withdraw the British forces from Greece and their evacuation began on 24th April. The principal reason for this withdrawal was the inadequacy of the available air support.

32. TRIPOLI: FACILITIES AND DEFENCES (*Plans 13 and 14*)

On the North African Coast, Tripoli was the only port capable of serving the enemy as a main base of supplies, and it had been put to good use during the winter months.

¹ See Naval Staff History, *Mediterranean, Vol. II.*

The harbour, roughly a square mile in area, was enclosed by two breakwaters; its entrance, about 350 yards in width, was closed by a boom. The town stands on a rocky promontory, the south-eastern portion being the European quarter, with the old town or native quarter—a warren of narrow streets—at the north-west end.

A seaplane base with a hangar was situated at the southern end of the Karamanli Mole, where destroyers could be moored. About midway on the first arm of the northern breakwater was the Naval Mole, extending about 600 feet to the southward and enclosing the Naval Basin. There, destroyers and escort vessels could moor stern on to the breakwater. Officers' quarters, barracks, sheds, offices and workshops were situated on the Naval Mole. Some 24 merchant vessels, ranging from 2,000 to 8,000 tons, could be accommodated, either at the quays or moored stern on to the breakwater. Other vessels were usually to be found at anchor to the north-eastward of the outer harbour.

There were several oil and petrol depots situated inside the defended perimeter of Tripoli, most of the storage tanks being underground.

The seaward defences consisted of some 14 batteries, mounting guns of 5-inch, 6-inch, 7·5-inch, and 10-inch calibres. There were also numerous A.A. batteries, searchlights and smoke-screen appliances, and a minefield outside the harbour. Two airfields were situated in the vicinity, one at Mellaga, 6–7 miles east of Tripoli, and another at Castel Benito, 15 miles to the south of the town.

33. NAVAL OPERATIONS IN SUPPORT OF THE ARMY¹

From the beginning of the German offensive, ships of the Mediterranean Fleet had been constantly employed in active operations aiding our hard-pressed military forces. By bombarding and mining, by landing and embarking personnel and stores and by carrying out demolitions, they supported and protected the Army's coastal flank.

But by far the most important contribution the Navy could make was the severance of the Italo-Tripoli sea line of communication. Unfortunately this was not easy. Submarines operating against the enemy convoys had achieved only a limited measure of success. As Malta was subjected to constant air attack from Sicily, our ability to harass the convoys was but occasional. Shipping at Tripoli was frequently attacked and mines were laid off the harbour, but the sum of these activities was not sufficient to interfere seriously with the flow of enemy reinforcements and supplies.

The loss of the Cyrenaican airfields immediately diminished our power to attack the enemy's communications and, indeed, our ability to give air protection to the Fleet and our own convoys. In addition to these grave disadvantages, the enemy's possession of these airfields constituted a potent threat to the vital British lines of communication with Malta and Greece.

On 16th April a division of destroyers², which had been based on Malta on the 11th to increase the weight of the attack on the enemy's line of communication, achieved a splendid success off Sfax, when it annihilated a convoy of five supply ships and its escort of three destroyers, for the loss of H.M.S. *Mohawk*. But successes such as this could be only sporadic, and so long as convoys could reach the enemy with reasonable regularity, the prospects of our Army were gloomy.

¹ See Naval Staff History, *Mediterranean*, Vol. II.

² H.M.S. *Jervis* (Captain P. J. Mack), *Janus*, *Mohawk*, *Nubian*.

34. DECISION TO BOMBARD TRIPOLI

How critical the situation appeared to those in London responsible for the conduct of the war has now been revealed by Sir Winston Churchill,¹ and about the middle of April the Admiralty decided that Tripoli must be subjected to a full-scale bombardment by the heavy ships of the Mediterranean Fleet, in the hope of putting the facilities of the port out of action for a considerable period and of destroying any shipping which might be in harbour. This, in the view of the Commander-in-Chief, Mediterranean (Admiral Sir Andrew Cunningham), involved risks to the Fleet entirely incommensurate with the damage likely to be effected, and it was only in preference to an alternative plan propounded by the Admiralty—*viz.*, to attempt to block the port by sinking the *Barham* and an A.A. cruiser in the entrance—that he reluctantly assented to the proposal.² As things turned out, owing to a singular piece of good fortune, the bombardment was carried out almost without opposition.

Two considerations governed the plan adopted by Sir Andrew Cunningham:—

"1. A heavy scale of air attack was expected and it was considered desirable for the carrier to be close to the battlefleet at daylight.

"2. It was not considered justifiable to risk the carrier in daylight close inshore within range of the shore batteries and with her movements restricted." For these reasons, he decided to carry out the bombardment at night, relying on flares for illumination. Zero time was accordingly fixed for 0500,³ 21st April, on which date moonrise was at 0436, dawn at 0650 and sunrise at 0730. He also decided to combine with the attack on Tripoli (designated Operation M.D.3) another operation (M.D.2), designed to escort H.M.S. *Breconshire*, carrying petrol and munitions to Malta, and at the same time to cover a convoy⁴ of empty cargo ships from Malta to Alexandria.

35. ORGANISATION OF THE FLEET FOR OPERATIONS M.D.2 AND M.D.3

Orders for the forthcoming operation were issued on 18th April; the Fleet was organised for Operation M.D.2 as Force "A", and for Operation M.D.3 in two Forces, "B" and "C". The organisation adopted for Force "A"⁵ included practically the full strength of the Mediterranean Fleet, *i.e.*, three battleships, one aircraft carrier, five cruisers, one A.A. ship, 15 destroyers. For the purpose of Operation M.D.3 (the bombardment of Tripoli),

FORCE "B" (the bombarding force) was to be composed of the following ships:—

BATTLESHIPS:	<i>Warspite</i> (Flag of C.-in-C., Admiral Sir A. B. Cunningham)	
	<i>Barham</i> (Flag of Rear-Admiral H. B. Rawlings)	
	<i>Valiant</i>	
CRUISER:	<i>Gloucester</i>	
DESTROYERS:	<i>Hotspur</i>	<i>Jervis</i> (Captain (D), 14th D.F.)
	<i>Havock</i>	<i>Janus</i>
	<i>Hero</i> (S.O., Sweeping Force)	<i>Juno</i>
	<i>Hasty</i>	<i>Jaguar</i>
	<i>Hereward</i>	

¹ Winston Churchill, *The Second World War*, Vol. III, English edn., pp. 211-216.

² Admiral Cunningham was fully alive to the importance of damaging Tripoli, but he considered that this could best be done by regular bombing by the R.A.F.

³ Zone Minus 3 Time is used throughout this Chapter.

⁴ Convoy M.E.7: *City of London*, *Clan Ferguson*, *City of Manchester*, *Perthshire*.

⁵ For list of ships, names of Commanding Officers, etc., see Appendix P.

FORCE "C" (the carrier force):—

CRUISERS:	<i>Orion</i> (Flag of Vice-Admiral H. D. Pridham-Wippell, <i>Perth</i> <i>Ajax</i>
AIRCRAFT CARRIER:	<i>Formidable</i> (Flag of Rear-Admiral D. W. Boyd (act.))
DESTROYERS:	<i>Griffin</i> <i>Kingston</i> <i>Defender</i> <i>Kimberley</i>

The escort of Convoy M.E.7 (Malta-East No. 7) was to be four destroyers, from Malta as far as the rendezvous with the Fleet, when two destroyers (*Jervis* and *Janus*) would join the Fleet, the remaining two (*Nubian* and *Diamond*), together with the *Phoebe* and *Calcutta*, forming the convoy escort onward to Alexandria.

One destroyer (*Hotspur*) was detailed to escort the *Breconshire* until she joined the Fleet.

36. AIR CO-OPERATION

The H.Q., R.A.F., Mediterranean, was requested to provide the following air reconnaissance:—

On the 18th to 22nd April, inclusive: certain specified areas;

On the 19th and 20th April: the Italian Fleet bases, if possible, and a specified area.

In addition, the following air co-operation was requested from Malta¹:—

a. On 20th April: a detailed reconnaissance of Tripoli Harbour;

b. On 21st April, between 0330 and 0415: a force of R.A.F. bombers to attack the foreshore of Tripoli Harbour with incendiaries;

c. Between 0415 and 0430, 21st: 830 Squadron F.A.A. to carry out a high-level bombing attack on the harbour. These aircraft to be clear to the westward of the harbour by 0440, 21st.

The Rear-Admiral (A) (*Formidable*) was to arrange for four flare-dropping and three spotting aircraft, the latter embarking observers and air-gunners from the battleships. Times were laid down for a systematic illumination of the target area from 0445 to 0540, 21st. Arrangements were also to be made to drop bombs as well as incendiaries and other devices for starting oil-fuel fires on the water.

Permission was given to the *Gloucester* to use her Walrus A/C for spotting, at the discretion of the Commanding Officer.

37. SUBMARINE AS NAVIGATIONAL BEACON (Plan 12)

In order to assist the Fleet in making an accurate landfall, the submarine *Truant*, on patrol at the time in the Gulf of Sirte, was to act as a lighthouse and asdic beacon in a position 4 miles north (true) of Ras Tajura.

Her orders were to show a white light, visibility 5 miles, to seaward, between the bearings 350° and 060°, group flashing, three flashes every minute—flash 2 seconds, eclipse 2 seconds. As an asdic beacon, she was to transmit simultaneously with the exhibition of the light a group of three letters, made slowly twice at 2-minute intervals, on the compass bearings of 025°, 005°

¹ In the event, alterations were made in the times laid down in these arrangements.
(SO 7437)

and 045° and in that sequence. On observing the main British force passing to the westward or at 0530, 21st (whichever was the earlier), the *Truant* was to proceed independently on course 090° and continue her patrol.

If she thought herself to be more than a mile out of position she was not to exhibit the light or transmit, but was to report the fact by 0400. (See Appendix R.)

38. ORDERS FOR THE BOMBARDMENT (*Plan 13*)

In the orders issued for the operation, the following was the allocation of primary targets for the bombarding forces:—

- | | |
|--|--|
| A. Spanish Quay and adjacent shipping. | <i>Warspite</i> (main and secondary armaments) |
| B. Karamanli Mole oiling and destroyer berths. Area inland from the base of the pier to include the seaplane hangar, Government offices and fuel storages. | <i>Valiant</i> (main and secondary armaments) |
| C. Naval basin, wharf (at North Mole), boom depot, pier and off-lying shipping. | <i>Barham</i> (main with alternative to F and G; secondary throughout) |
| Counter-battery fire as requisite. | <i>Gloucester</i> |
| D. Shipping in south-east sector of harbour. | <i>Gloucester</i> (if not required for counter-battery fire) |
| E. Shipping in north-east and centre sectors of harbour. | Destroyers |
| F. Railway station and adjacent sidings. } | <i>Barham</i> (alternative target for main armament at discretion of the Rear-Admiral, 1st B.S.) |
| G. Military stores. } | |
| H. Central electric station. | Ships having no other satisfactory target. |

The destroyers' and battleships' secondary armament could assist the *Gloucester* in counter-battery fire at the Commanding Officers' discretion. The battleships' main armaments were not to be diverted without orders.

Ammunition expenditure was limited to 25 per cent. of "outfit" allowance. The battleships, unless otherwise ordered, were to use reduced charges, the *Warspite* and *Barham* firing bombarding shell and the *Valiant* A.P.C. shell, set for delay action when firing at the oil tank area. Anti-ship shell were to be used by the battleships' secondary armaments, the *Gloucester* and the destroyers.

As spotting was expected to be difficult, the battleships were ordered to use main armament ranges for their secondary armaments when necessary. If unable to spot, all ships were to cover their target areas with "blind ladder" fire. It was emphasised that rounds falling short of the breakwater would be wasted, whereas those over would have some chance of doing damage.

All ships were furnished with reconnaissance photographs taken on recent dates (see Appendix Q), and a final clause in the instructions stressed the necessity of the utmost vigilance on the disengaged side.

The tasks assigned to the *Formidable's* aircraft were as follows:—

- a. Two A/C of 829 Squadron: preliminary flare dropping and diversionary bombing;
- b. Four A/C of 826 Squadron: flare illumination of targets for the bombarding ships;
- c. Three A/C of 826 Squadron (carrying battleships' observers): spotting for the battleships.

39. THE FLEET LEAVES ALEXANDRIA, 18TH APRIL (*Plan 11*)

At 0800, 18th April, the Commander-in-Chief, wearing his flag in the *Warspite*, sailed from Alexandria with the following ships in company: *Barham*, *Valiant*, *Formidable*, *Phoebe*, *Calcutta*, and the destroyers *Juno*, *Jaguar*, *Kingston*, *Kimberley*, *Griffin*, *Havock*, *Hereward*, *Encounter*. The *Defender* fouled her buoy while leaving harbour and joined later. Vice-Admiral Pridham-Wippell, who was operating from Suda Bay at the time with the *Orion* (flag), *Ajax*, *Gloucester*, *Hasty* and *Hero*, was to join the Fleet at sea on 20th April.

The Fleet steered a mean course 310° at 17 knots, as though making for Kithera Strait. At 1450 the *Vendetta*, escorting four ships from Convoy A.N.29¹, was met returning to Alexandria. Twenty minutes later (1510) the Fleet was sighted and reported by Italian reconnaissance aircraft, and at 1820 two S79s were engaged by the Fulmar fighter patrol. One of the enemy aircraft was severely damaged in the encounter and the pilot of one Fulmar was wounded. Blinded by oil from his damaged engine, he crashed while landing on the *Formidable*. The pilot was rescued by the *Hereward*, but unfortunately the observer was not found.

That evening the *Breconshire*, escorted by the *Perth*² and *Hotspur*, sailed from Alexandria at dusk with orders to rendezvous with the Fleet at daylight, 20th April.

After dark the Fleet altered course to 010° and, passing through the Kaso Strait at 0400, 19th, steered for Suda Bay, arriving there at 1245. After refuelling the destroyers, the Fleet sailed at 1450, and was thought to have been sighted by enemy reconnaissance aircraft on leaving harbour.

40. CRUISER MOVEMENTS, 18-19TH APRIL

Meanwhile, Vice-Admiral Pridham-Wippell in the *Orion* had sailed from Suda Bay with the *Ajax* at 2000, 18th April, intending to cruise off Cape Malea in order to cover the convoy movements in the Aegean.

The *Gloucester* and *Hasty* had been carrying out a bombardment of Fort Capuzzo in the Sollum area that forenoon (18th), with orders to return to Suda Bay by daylight, 19th; and the *Hero* had been sent to the assistance of the oiler *British Science*, which had been torpedoed in Convoy A.N.27, north of Kithera. On arrival, she found the *British Science* abandoned, having been torpedoed a second time at 1530, 18th; after picking up survivors, the *Hero* returned to Suda Bay that night.

The *Orion* and *Ajax*, cruising to the Gulf of Nauplia during the forenoon of 19th April, sighted a convoy consisting of three ships carrying civilians evacuated from Athens, escorted by the *Flamingo*. Soon afterwards she was reinforced by the *Phoebe* and *Calcutta*, detached by the Commander-in-Chief for the purpose, with orders subsequently to join Convoy M.E.7 by daylight, 20th.

At 1500, 19th, the *Gloucester*, *Phoebe* and *Hero*, having re-fuelled at Suda Bay, joined Vice-Admiral Pridham-Wippell east of Antikithera island, who then proceeded to the westward at 18 knots to provide distant cover for Convoy M.E.7, which left Malta at 2000, 19th, escorted by the *Jervis*, *Janus*, *Nubian* and *Diamond*.

¹ Convoy A.N.29 (Alexandria—North No. 29), consisting of supply ships for the Army in Greece, had been turned back on the decision to evacuate.

² The *Perth* had been prevented by engine trouble from sailing with the Fleet.

41. JUNCTION OF FORCES, 20TH APRIL (*Plan 11*)

At 0420, 20th April, Vice-Admiral Pridham-Wippell's cruiser force steered to the southward and joined the battlefleet at the appointed rendezvous (34° 20' N., 19° 30' E.) at 0800, the *Breconshire* and her escort joining at the same time. The Fleet was reformed on a westerly course, the *Breconshire* prolonging the line and the three destroyers (*Hero*, *Hasty*, *Holtspur*) joining the screen.

Shortly after this a stroke of luck occurred. An Italian aircraft sighted Convoy M.E.7, then about 50 miles west of the Fleet, and reported a number of ships steering east at 0950. Had the convoy not been there and the aircraft stood on a few miles to the eastward, it might well have reported the Fleet on its westerly course, which could hardly have failed to invite further investigation. As it was, the Italians assumed (correctly) that the ships reported were merely empty store ships from Malta, and no attempt was made to shadow or attack the Fleet throughout the day.

Convoy M.E.7 was sighted by the Fleet at 1110; the *Jervis* and *Janus* were ordered to join the flag, and the *Phoebe*, *Calcutta*, *Nubian* and *Diamond* to escort the convoy to Alexandria.

At 1115, a Cant Z.1007, probably on passage from Cyrenaica to Italy, was intercepted and shot down in flames by two Fulmars of 806 Squadron.

A small group of aircraft, which was detected at 1305, on being intercepted by a section of Fulmars proved to be five Ju.52 transport planes. One broke away and escaped to the northward, but the other four were shot down, two of them (presumably carrying petrol) exploding in the air. The leader of the Fulmar section crashed into the sea in a spin and not a trace of survivors was found.

Until dark the Fleet maintained its westerly course. At 2100 the *Breconshire*, escorted by the *Encounter*, was ordered to proceed to Malta. Twenty minutes later, at 2120, the Fleet altered course to 235°, 19 knots and assumed the organisation ordered for Operation M.D.3; and Force "C" (*Orion*, *Ajax*, *Perth*, *Formidable*, *Griffin*, *Defender*, *Kingston*, *Kimberley*), under Vice-Admiral Pridham-Wippell, was detached to carry out flying operations with the *Formidable*.

Force "C", after parting company, continued on a southerly course until 0030, 21st, when it altered westward until 0330. The cruisers and destroyers were stationed on bearings from which danger might be expected. Vice-Admiral Pridham-Wippell stated that he discarded all other forms of screen owing to difficulties which might arise if he had to alter his intentions. This eventuality did occur, as his proposed original course would have taken Force "C" too close to a position where a suspected enemy submarine had been attacked at 1900, 20th.

At 0307, a fire broke out on the *Formidable's* flight deck; but it was speedily extinguished and her aircraft were flown off to time (0335-0341) from a position approximately 30 miles north of the battlefleet.

42. H.M.S. *Truant's* PROCEEDINGS (*Plan 12*)¹

Meanwhile the *Truant*—which, it will be remembered, was to act as a beacon for the bombarding ships—had left her patrol in the Gulf of Sirte at 1945, 19th, to take up the position ordered preliminary to the bombardment.

¹ See Appendix R.

At 1100, 20th, she observed the approach of three trawlers sweeping in line abreast on course 100°. They were followed by a large barque and, at about 5 miles astern of her, a small tanker. Both these ships were unescorted, steering steady courses. Although they presented easy targets, Lieutenant-Commander Haggard refrained from attacking, in order not to compromise his primary obligation of acting as a navigational beacon for the Fleet.

At 1830, the *Truant* bottomed in the position prescribed, 4 miles north (true) of Ras Tajura. At 0250, 21st, she surfaced and took on the role of a navigational beacon. At 0445¹ the bombarding force passed close astern of her and she proceeded to the eastward.

43. APPROACH TO TRIPOLI, 20th-21st APRIL: R.A.F. AND F.A.A. ATTACKS (Plans 11 and 12)

Having detached the Carrier Force at 2120, 20th, the Commander-in-Chief formed Force "B" in line ahead in the order: *Warspite*, *Valiant*, *Barham*, *Gloucester*, with the four T.S.D.S. destroyers *Hotspur*, *Havock*, *Hero* and *Hasty* sweeping ahead. The *Hotspur* and *Havock*, with bow protection out, led the van while the *Hereward* stood by to replace any one of the T.S.D.S. destroyers if necessary. A subdivision of two destroyers was stationed one and a half miles on either bow of the battle fleet—*Jervis* and *Janus* to port, *Juno* and *Jaguar* to starboard. These two subdivisions were formed in line ahead; after rounding the *Truant*, the *Jervis* and *Janus* dropped back to a quarterer position to clear the line of fire.

The approach was carried out almost without incident. Shortly before midnight bomb explosions and fires were sighted, indicating that the air attack on Tripoli had started somewhat earlier than originally planned.

This attack was carried out by eight Wellington bombers of No. 148 Squadron, R.A.F., from Malta, and lasted from 2352, 20th, to 0130, 21st. They dropped a total weight of 19,000 lb. G.P. bombs and 1,024 lb. of incendiaries. Bursts were seen in the south part of the town and at the west end of the Spanish Quay. Five large fires were started near the south side of the harbour, and one on the foreshore east of the Karamanli Mole. Several small fires were observed in the town, at a Government office east of Karamanli Mole and on the Mole itself. Only one Wellington suffered damage to its engine from A.A. fire.

While this attack was in progress (at 0115), a hospital ship, northbound from Tripoli, passed fairly close to the Fleet. At 0300, 21st, course was altered to 210° and speed reduced to 15 knots to enable soundings to be taken. Shortly after this, the second phase of the air attack—a high-level bombing attack by Swordfish aircraft of No. 830 Squadron, F.A.A. (Malta), which lasted till about 0430—was seen to be taking place. The bomb explosions, flares and enemy A.A. fire showed up the harbour well to the approaching Fleet.

The weather conditions were most favourable—a calm sea, no wind and excellent visibility. Moonrise was at 0436 and dawn at 0650. The light exhibited by the *Truant* was sighted at 0410 seven miles ahead and proved a most efficient beacon; four minutes later the *Havock* made asdic contact with her. The bombarding ships rounded the *Truant* at 0438, the *Warspite* leaving her two cables on her starboard beam. As this was found to be slightly inside the intended firing position, course was altered at 0445 to 290°, and this course was maintained throughout the westward bombarding run.²

¹ As reported by the *Truant*.

² See Appendix R.

44. BOMBARDMENT OF TRIPOLI, 21ST APRIL (*Plans 12, 13, 14*)

The anxious period of approach passed without any indication that the enemy had sighted the Fleet. By 0500 the harbour of Tripoli was fully illuminated by some 10 or 12 flares and the spotting aircraft had reported "Ready to observe." The *Warspite*, however, passed inside the initial position ordered (15,000 yards, 045° Tripoli Light); and a new one, 11,700 yards, 045° from the centre of the south side of the Spanish Quay (R.P.A.), had to be chosen through which she passed at 0502. Ten seconds later she opened fire, ranging with "A" and "B" turrets. Within a minute all the other ships, except the destroyers, were in action with their main and secondary armaments engaging their allotted targets. The sweeping destroyers joined in at 0504, firing in divisional concentration, while the *Janus* and *Hereward* fired independently.

A vast cloud of dust and smoke, rising from the bombs dropped shortly before by the T.S.R. aircraft from Malta and the shell bursts, hung over the harbour and town, making direct observation practically impossible. All that could be seen from the ships was an occasional explosion or the top of a splash of a 15-inch salvo when it landed in the harbour. In spite of the brilliancy of the flare illumination, the spotting aircraft experienced difficulty in observing until they could see the flash of shells bursting inshore.

There is no doubt that complete surprise had been achieved, for, while the defences kept up a fine display of A.A. coloured tracer directed against the flares and aircraft, the coastal batteries made no reply until the Fleet had commenced to turn eastward, fully 20 minutes after the start of the bombardment.

After firing her fourth salvo, the *Warspite* received an ambiguous spotting report which the Control identified with a large two-funnelled ship sighted alongside the south-west corner of the Spanish Quay. Fire was directed on this target, but though splashes were seen to right of it no spotting reports were received. Indirect fire was then ordered and, after resorting to bold laddering, spotting reports were received for the 18th and 19th salvos and again after the 22nd and 23rd salvos. The first hit was reported following the 24th salvo at 0519, after which the target was held until the turn-away at 0524. It was thought that the 6-inch guns also scored hits at this time.

The *Valiant's* initial range was 12,800 yards, 223° on a point at the foot of Karamanli Mole. No spotting reports were received until the 8th salvo (0507). At 0510, the target was shifted to the underground oil storage tanks near the Eritrean Barracks, at which twelve salvos were fired. After the 26th salvo six salvos were fired up and down the Mole, and the final two salvos of the first run were directed at the Government buildings. Throughout the run the 4.5-inch guns maintained a steady fire on the Mole.

On board the *Barham* the impression prevailed that the Fleet had passed exactly through the intended position and that the run was being made at the planned ranges. She was therefore using the flagship's initial position by plan corrected for bearing and range. This misunderstanding accounts for the large initial range used and why the 6-inch armament was judged to be out of range throughout the bombardment. The *Barham* fired four-gun salvos for ranging, but the early ones were not observed. The first spotting report received was read (apparently in error) as "O.K.", and the range remained unaltered until it became obvious that the spotting aircraft was not detecting the fall of shot. The Control Officer then commenced "blind ladders" down, but, owing to the injunction not to shoot short, the ladder steps were far too cautious. Splashes observed on two occasions were treated as

confirming the range, but actually no spotting reports were received on this run. The Director Officer reported subsequently that on opening fire his line was on the left-hand end of a *Bari*-Class cruiser¹ and that it moved right along the breakwater to the boom defence building. Thirty-three salvoes were fired on this run, of which "A" turret missed eight and "Y" turret six.

The *Gloucester* had permission at discretion to use her Walrus aircraft for spotting, but did not do so on account of the possible necessity of engaging different batteries, the difficulty of distinguishing her own salvoes in the harbour area from those of the destroyers and battleship secondary armaments, the light inshore wind and the possibility of compromising surprise by the flash and noise of starting up the aircraft. The *Gloucester* opened fire on Area "D", using blind ladders as the fall of shot was not seen. At 0515 she engaged with direct fire a two-funnelled merchant ship anchored outside the harbour entrance, three salvoes being observed to hit. Shortly before the "turn together" was ordered (0524), shots from a battery² bearing 170° fell over the *Gloucester*. Smoke was very dense at the moment and the forward turrets were checked for the turn-away.

The four T.S.D.S. destroyers which had got out their sweeps at 2002/20 formed to port in the order: *Hotspur*, *Havock*, *Hero* (S.O.), *Hasty*—the *Hotspur* acting as guide of the Fleet. The *Havock's* sweep becoming knotted, it was cut away; but she got out her bow protection gear in position. The screen passed about 4 cables on the landward side of the *Truant*. The *Hereward* hauled over to port of the screen and engaged suitable targets independently after the signal to open fire.

The screen destroyers opened fire in flotilla concentration using a corrected bearing which was signalled for each salvo, the *Hero* being master ship. Salvoes were laddered across the target area (E) in 300-yard steps, working up and down 900 yards. At 0511, when a large merchant vessel was illuminated by a flare, fire was shifted on to her. Throughout the bombardment, no splashes were seen short of the breakwater. To enable a look-out to be kept for surface craft, the *Hotspur* did not fire her forward guns.

The *Hotspur* led round to course 090° at 0513, fire being checked for the turn. At 0517 a few shells fell near the screen, apparently from a large-calibre gun situated 1½ miles east of the harbour. During the turn the *Hotspur* became involved with the *Juno* and *Jaguar*. Apparently these ships had not intercepted the signal ordering the screen to alter course, and one of them fired at the *Hotspur* with Breda and pompom guns. Happily, no damage was done, and firing ceased when the *Hotspur* switched on her fighting lights.

During this first run the *Janus* fired at the two-funnelled ship lying outside the harbour, and after the turn to the eastward (0529) the *Jervis* and *Janus* took station on the *Gloucester's* starboard bow.

At 0524 the Fleet checked fire and turned together to 090°³. Fire was re-opened at about 0529 and many more spotting reports of hits began to come in. The *Warspite's* starboard 6-inch battery fired only a single salvo before the target was considered to be out of range. At 0532, after four 15-inch salvoes had fallen in or near the target area, a spotting correction for direction was wrongly applied. The next salvoes fell wide unobserved; subsequent corrections were not bold enough and others fell in the Naval Basin. An unexpected spotting report of the forty-third salvo, which was acted on,

¹ There is no evidence of any Italian cruiser being in harbour.

² The battery appeared to be situated one mile east of Mahgiub and the shots to be of about 6-inch calibre.

³ The destroyers had turned ten minutes earlier.

resulted again in the subsequent salvoes being carried out of the target area unobserved until 0543, when they were again spotted on to the Spanish Quay.

When the *Valiant* steadied on the easterly course astern of the *Barham*, she re-opened fire with her 15-inch guns, range 14,300 yards, on the underground petrol tanks to the westward of the Karamanli Mole; while the 4·5-inch continued firing at the Mole. At 0534, the 15-inch guns shifted target and fired fifteen salvoes at the Naval H.Q. and Government offices east of the Mole. Finally, two salvoes for "gun clearing" were fired at the destroyers secured to the Karamanli Mole.

In the *Barham* a lengthy delay occurred in setting the control table, where blast had caused a failure of lights. Though the range used was still too great, the bearing proved more accurate than during the first run. Again the opening salvoes were unobserved and the Control Officer had to start "blind ladders," this time with bolder but still insufficient corrections. The plot showed the line of fire more or less steady during Run II, with indications that most of the salvoes should have pitched in the area Railway Station—Military Stores—Power Station, an assumption confirmed by the observer's report. Twenty salvoes were fired in Run II, many towards the end being only single-gun salvoes.

After completing the turn, the *Gloucester* directed her fire on the active enemy battery which had continued firing at the extremely slow rate of about two rounds per minute. Its shots, which fell both over and short of the *Gloucester* were well directed for line. At 0541, the *Gloucester* fired a blind ladder, after readjusting her control table; and as the salvoes fell, some small red bursts were observed and the battery ceased its fire. Apparently the battery engaged fired two-gun salvoes, while another battery situated nearer to the Karamanli Mole (thought to be the Hamidie Battery) fired single-gun salvoes. The latter was not engaged, as the *Gloucester's* after group control was not fitted for indirect fire. The enemy guns appeared to be of 6-inch or 8-inch calibre.

Three ships of the T.S.D.S. destroyer group fired again during the second run. Commander Biggs (*Hero*) decided not to fire again, as the blinding effect of his own and the adjacent ship's gun-flashes interfered with the look-out for enemy surface craft.

The *Jervis* and *Janus*, after turning to the eastward, took station on the *Gloucester's* starboard bow, and the *Janus* joined in the counter-battery fire. A splinter from a heavy calibre shell which fell on board the *Janus* seems to have been the only concrete evidence of the enemy's reply to the bombardment. When the destroyer screen drew some distance ahead of the battle-fleet, speed was reduced and course altered to regain station. As far as could be estimated, the great majority of the rounds fired by the destroyers fell in the target area.

"Cease fire" was ordered at 0545, and shortly afterwards the Fleet altered course to the north-eastward for the return passage.

45. REMARKS ON THE FIRING AND SPOTTING (Plan 3)

With targets so close together, it had been appreciated that difficulty would be experienced in distinguishing the fall of shot from individual ships. The *Warspite* fired two-gun salvoes for ranging and the *Barham* four-gun salvoes, but when the former ship fired for effect after her fourth salvo, the observer signalled two salvoes to the *Barham*, which resulted in 10 minutes' delay to the *Warspite* in refinding her target.

This was the first serious occasion of spotting by flare illumination in the Mediterranean and, although results did not quite come up to expectations, much useful experience was gained. The flares, released at intervals of 500 yards, were set to start burning at 4,000 ft. Four flares in line gave good illumination over an area of approximately 2,000 yards by 400 yards. The harbour being roughly 2,000 yards in length and 1,800 yards width, a single line of flares gave insufficient illumination for spotting over the whole area, and consequently many salvoes fell unobserved in the harbour.

Some confusion was caused by ships firing into adjacent areas, and subsequent analysis showed that the *Warspite's* early salvoes fell in, or to the south of, the *Barham's* area, and were neither seen nor identified. If illumination is not uniform over the whole area the targets should be widely separated. Under the actual conditions, spotting depended almost entirely on whether the salvo fell where the observer happened to be looking, and salvoes that fell 600–800 yards wide of that point were not seen at all. Captain Cooke (*Barham*) stated that on the first run the *Barham's* salvoes must be assumed to have fallen considerably beyond the harbour and that they probably caused havoc in the town. He thought it improbable, even with such excellent illumination, that observers would ever see or distinguish many salvoes in a night bombardment. The laying of smoke by the enemy, obviously a simple precaution, would suffice to prevent observation. The allocation of small contiguous areas only led to confusion, and ships should be allowed to spread their salvoes over the whole area. Further, he remarked on the necessity of short salvoes as the only possible definite information for the application of corrections which are well worth the wasted salvo.

The plotted position of the *Valiant's* salvoes were based on the spotting reports only of the eighth and twenty-sixth salvoes, and after the latter no reports were received on account of the heavy pall of smoke rising from the burning underground oil storage tanks. (See Appendix S.)

46. REPORTS OF THE *Formidable's* AIRCRAFT (Plan 13)

The principal points from the reports of the *Formidable's* flare-dropping and bombing aircraft may be summarised as follows: The weather conditions over Tripoli were: surface wind, S. by E., light to moderate; wind at 6,000 ft., 320/20; 7/10 low cloud over the sea, clear over the harbour and for some distance inland. The attack by T.S.R. aircraft from Malta was in progress at 0410 when the two Albacore aircraft detailed for the diversionary bombing and incendiary attack approached Tripoli.

No. 5F Albacore A/C passed over the *Truant* at 0418 and remained to seaward until 0440. It then approached from the southward and dropped three flares, and after circling to the westward, approached the harbour again over the north-west corner. Another flare was dropped from 6,000 ft., followed at 0451 by two bombs and incendiaries.

No. 5G Albacore A/C approached the town from the north-east, circled to seaward, crossed the coastline west of Tripoli and ran over the target area, dropping flares. On its second run from the westward more flares were dropped and the bombs were released in a glide attack from 6,000 ft.

No. 5G A/C reported that two batteries opened fire—one a mile west of, and the other a mile east of, the harbour. No. 5F A/C reported that a large fire in the town was still visible at 0625, when the aircraft was at 4,000 ft. over the *Formidable*.

No. 4A A/C arrived off Tripoli and circled to seaward of the harbour until 0455, when flare-dropping was begun and continued at regular intervals. During the second run, the flares were spread out to illuminate the *Warspite's* and *Barham's* targets.

No. 4F A/C commenced flare-dropping at 0435, continuing at intervals until 0545.

No. 4G A/C dropped flares in sets of three on the harbour side of the Embarkation Quay from 0455 to 0515, and then shifted and dropped the remainder on a line behind the Naval H.Q., the last being dropped at 0535.

No. 4K A/C dropped its first set of flares at 0459, too far to the westward of the targets A and C. All the runs were made from west to east, the last flares being dropped at 0535.

The pilots and observers of the nine aircraft engaged were in general agreement that 50 per cent., of the 15-inch salvoes fell inshore. The exact positions of the fall of shell on shore could not be seen, nor could the calibre be estimated, and practically all that was visible was a cloud of dust varying in size. Only in three cases was actual damage¹ observed on the fall of a salvo:—

1. A large fire in the oil depot started by the *Valiant*.
2. The collapse of a large block of buildings, either the Army H.Q. or the Government offices.
3. A hit, or near hit, on the power station which caused vivid blue and orange flames.

The reports, therefore, refer principally to the results of the salvoes which fell in or around the harbour. In general, 15-inch salvoes falling in the sea could be seen and identified, but all the spotting observers reported difficulty in correcting the time for the splash with that of the salvoes as observed.

As the *Warspite's* opening salvoes fell in the town, satisfactory spotting was impossible until the range was reduced and the fall of shot was brought into the harbour.

47. RETURN PASSAGE TO ALEXANDRIA (Plan 11)

After completing the bombardment, the battle-fleet kept on at maximum speed to the north-eastward and sighted Force "C" 7 miles ahead at 0700, 21st. The *Formidable* was occupied in flying-on operations, which were delayed for 20 minutes by an aircraft collapsing its undercarriage and by two flare-droppers which missed the ship not getting back until 0750. The Fleet was reformed at 0800 on course 080° at 21 knots.

It had been reported the evening before that a convoy was steering towards Tripoli, and during the Fleet's retirement there were indications of a ship signalling. The position, however, was uncertain and the *Formidable* had no Swordfish aircraft available for search.

As the expectation of heavy air attacks did not materialise, it seemed evident that the enemy had not heard of the bombardment or had no bombers available. It was not till 1110 that an enemy aircraft was sighted bearing 040°, at 6,000 ft. This, on being intercepted and engaged by Fulmars, proved to be a Cant Z.1007. The Fulmar fighter which shot it down did not return until 1340.

¹ For the damage as estimated from observers' reports and photographs taken after the bombardment, and also that subsequently admitted in Italian reports, see Appendices V and W.

Meanwhile, another Fulmar section which had been searching for the missing aircraft fell in with a D.O. 24 F/B flying south. The Fulmars attacked at 1350 and forced it down on the water with its port engine on fire. Twice it attempted to take off, but each time was forced down again; it was left in a sinking condition.

At 1615, the Fleet altered course to 110° and reduced speed while recovering paravanes. At 2000, the Fleet's position was $33^{\circ} 48' \text{ N.}$, $18^{\circ} 02' \text{ E.}$, and shortly afterwards the 14th D.F. (*Jervis*, *Janus*, *Juno*, *Jaguar*) was detached to return to Malta. At 2100 the Commander-in-Chief detached the Cruiser Force (*Orion*, *Ajax*, *Perth*, *Gloucester*), under Vice-Admiral Pridham-Wippell, to sweep to the northward during the night.

The Commander-in-Chief's intention to lay mines at Benghazi from aircraft of the *Formidable* was abandoned on receipt of information that an attack on that harbour by Wellingtons was planned for the night. The Fleet continued its course, which was set to keep it at daylight as far as possible from the enemy dive-bomber concentration in Cyrenaica.

During the 21st and 22nd April, fighter patrols were maintained in day-time over the Fleet, although a strong north-westerly wind delayed flying operations. Enemy shadowers reported the Fleet during the forenoon of the 22nd and an enemy formation was detected at 1124. At the time, two Fulmar sections were on patrol and the remaining five sections were launched by A.T.O., making 14 fighters up in all. The enemy group, which proved to be three Ju. 88s, was intercepted and engaged by four Fulmar sections. One Ju. 88 was shot down, another set on fire and probably destroyed; the third, after jettisoning two large bombs, made off in a damaged condition. (See Appendix U.)

At noon the *Kandahar* joined the Fleet in $34^{\circ} 21' \text{ N.}$, $22^{\circ} 42' \text{ E.}$, and the *Griffin* was detached to fuel at Suda Bay and then to reinforce the A.N.F.29 convoy. A little later the *Auckland* was sighted towing the *British Lord*, which had been torpedoed and abandoned south of Gavdo Island (a.m. 21st), when in convoy A.S.26.

The *Gloucester* was detached at 1610 to fuel at Suda Bay before proceeding to Malta to reinforce the 14th D.F., and also the *Perth* for duty in the Aegean.

At 1100, 23rd April, the Fleet entered Alexandria harbour.

48. OBSERVATIONS ON THE BOMBARDMENT OF TRIPOLI

The bombardment of Tripoli presents noteworthy features of its own when compared with the many examples of similar operations in the past.

It was the first full-scale bombardment carried out at night, no previous bombardment of importance having been planned or executed entirely as a night operation.

It also exemplified the use at night of air attacks preceding the bombardment; of flares for illuminating the target area; of aircraft for spotting; of a submarine as a navigational beacon.

The operation was carried through without hitch; but the results, though impressive, were regarded as disappointing.

The contributory causes of difficulty may be summed up as:—

- a. The target areas as defined were too close together.
- b. Smoke prevented distinction of the salvos.
- c. The flare illumination was too shallow in depth.
- d. Initial ranges were in some cases inaccurate.

It is not surprising that, in an operation of this nature, the town and its inhabitants suffered far more damage than the shipping or the port facilities. To what degree the material destruction is comparable with that of a strong concentrated air attack remains an open question. In either case the results obtained could not be expected to be more than temporary, as the enemy's supply route still remained open. In point of fact, shipping movements from Naples to Tripoli were suspended for only 24 hours as the result of this bombardment. Far greater damage was done a fortnight later, when a 5,000-ton ammunition ship blew up in the port.

Though it cannot be claimed that Tripoli deserved to rank as a first-class defended port, it was nevertheless well equipped with modern defences. Experience of the past showed that ships run grave risks in attacking efficient shore defences; and, in the view of the Commander-in-Chief, the fact that the ships were on this occasion unscathed did not warrant a repetition of the operation.

Summing up the results, he subsequently wrote:—

“The combined effects of the enemy's smoke screen and the dust and smoke raised by the initial salvoes prevented effective air spotting, and the resultant damage was less than it should have been. There was plenty of water space between the ships in the harbour, and continuous air spotting would have been essential to obtain decisive results.

“Three merchant ships and one destroyer were sunk and at least two merchant ships damaged. Besides the actual damage on shore, which was considerable, there must be counted the effects on the working of the port of partial evacuation by the native population.

“However, in spite of our immunity on this occasion, I do not consider in general that the results to be expected justified hazarding the whole Mediterranean Battlefleet in mineable waters and exposed to potentially heavy air attacks at such a distance from their base.”

APPENDIX A

Extracts from the Armistice Terms accepted by the Pétain Government

In the Articles of the Armistice terms, proposed by the German Government and accepted by the Pétain Government on the 22nd June, the clause relating to the French Fleet runs:—

“(8) The French Fleet, except that part left free for the safeguard of French interests in the Colonial Empire, shall be collected in ports to be specified, demobilized and disarmed under German or Italian control. The German Government solemnly declare that they have no intention of using for their own purposes during the war the French Fleet stationed in ports under German control except those units necessary for coast surveillance and minesweeping. Except for that part (to be determined) of the fleet destined for protection of Colonial interests, all ships outside French territorial waters must be recalled to France.”

The Times, 24th June 1940

The clause in the Italian Armistice terms relating to the French Fleet, published on the 25th June, runs:—

“The French Fleet is to be concentrated in ports to be indicated and demobilized and disarmed under the control of Italy and Germany, except such units as the German and Italian Governments agree upon for the safeguard of French Colonial interests. All warships not in French metropolitan waters, except those recognised as necessary to safeguard French Colonial interests, shall be brought back to metropolitan ports.

“The Italian Government declares that it does not intend to use, in the present war, units of the French Fleet placed under its control, and that on the conclusion of peace it does not intend to lay claim to the French Fleet.”

Summary in *The Times*, 26th June 1940

Referring to the publication of the Armistice terms in Germany on the 25th June, *The Times* points out certain differences in the text from that given in its edition of 24th June.

Article 8 in the German version specifies that: “the harbour to which a warship is to return must be determined on the basis of its home port in peace time”; and “The German Government further solemnly and expressly declare that they do not intend to claim the French Fleet on the conclusion of peace.” (*The Times*, 26th June 1940.)

APPENDIX B

Copy of Terms as sent to Admiral Gensoul

3rd July 1940

To: *Monsieur l'Amiral Gensoul, from Admiral Somerville*

His Majesty's Government have commanded me to inform you as follows:—

They agreed to the French Government approaching the German Government only on condition that if an armistice was concluded, the French Fleet should be sent to British ports. The Council of Ministers declared on 18th June that, before capitulating on land, the French Fleet would join up with the British force or sink itself.

Whilst the present French Government may consider that terms of their armistice with Germany and Italy are reconcilable with these undertakings, H.M. Government finds it impossible from their previous experience to believe that Germany and Italy will not at any moment which suits them seize French warships and use them against Britain and Allies. Italian armistice prescribes that French ships should return to metropolitan ports, and under armistice France is required to yield up units for coast defence and minesweeping.

It is impossible for us, your comrades up till now, to allow your fine ships to fall into the power of German or Italian enemy. We are determined to fight on until the end, and if we win, as we think we shall, we shall never forget that France was our ally, that our interests are the same as hers, and that our common enemy is Germany. Should we conquer, we solemnly declare we shall restore the greatness and territory of France. For this purpose we must be sure that the best ships of the French Navy will also not be used against us by the common foe.

In these circumstances, H.M. Government have instructed me to demand that the French Fleet now at Mers-el-Kebir and Oran shall act in accordance with one of the following alternatives:—

A. Sail with us and continue to fight for victory against the Germans and Italians.

B. Sail with reduced crews under our control to British port. The reduced crew will be repatriated at the earliest moment. If either of these courses is adopted by you we will restore your ships to France at the conclusion of the war, or pay full compensation if they are damaged meanwhile.

C. Alternatively, if you feel bound to stipulate that your ships should not be used against Germans or Italians, since this would break the armistice, then sail them with us with reduced crews to some French port in the West Indies—Martinique, for instance—where they can be demilitarised to our satisfaction, or perhaps entrusted to the United States of America, and remain safely until the end of the war, the crew being repatriated.

If you refuse these fair offers, I must with profound regret require you to sink your ships within six hours. Finally, failing the above, I have the orders of His Majesty's Government to use whatever force may be necessary to prevent your ships from falling into German or Italian hands. (Enc. 4, M.016021/40)

APPENDIX C

Admiral Gensoul's first written reply, copied by the Flag Lieutenant and received at 1000/3 by Captain Holland

(On British signal form, in pencil)

1. Les assurances données par l'Amiral Gensoul à l'Amiral Sir Dudley North demeurent entières. En aucun cas les bâtiments français ne tomberont intacts aux mains des Allemands ni des Italiens.

2. Étant donné le fond et la forme du véritable ultimatum qui a été remis à l'Amiral Gensoul, les bâtiments français se défendront par la force.

TRANSLATION

1. The assurances given by Admiral Gensoul to Admiral Sir Dudley North remain the same. In no case will French warships fall intact into the hands of the Germans or the Italians.

2. In view of the substance and form of the downright ultimatum which has been sent to Admiral Gensoul, the French warships will be defended by force. (Enc. 4, M.016021/40)

APPENDIX D

Admiral Gensoul's second written reply, handed by the C.O.S. to Captain Holland at 1109/3rd July

(On French signal form, in pencil)

1. Amiral Gensoul ne peut que confirmer la réponse déjà apportée par le Lieutenant de Vaisseau Dufay.

2. Amiral Gensoul est décidé à se défendre par tous les moyens dont il dispose.

3. Amiral Gensoul attire attention de l'Amiral Somerville sur le fait que le 1 (premier) coup de canon tiré contre nous aurait pour résultat pratique de mettre immédiatement toute la Flotte Française contre la Grande Bretagne, résultat qui serait diamétralement opposé à celui que recherche la Gouvernement de S.M. Britannique.

TRANSLATION

1. Admiral Gensoul can only confirm the reply already sent by Lieutenant de Vaisseau Dufay.

2. Admiral Gensoul is determined to defend himself by every means at his disposal.

3. Admiral Gensoul draws Admiral Somerville's attention to the fact that the first shot fired at us will result in immediately ranging the whole French Fleet against Great Britain, a result which would be diametrically opposed to that sought by H.M. Government. (Enc. 4, M.016021/40)

APPENDIX E

Final Statement from Admiral Gensoul, written on board the *Dunkerque*, 1720/3/7/40

(In pencil, on notepaper—no date, no signature)

BÂTIMENT DE LIGNE *Dunkerque*.

1. La Flotte Française ne peut pas ne pas appliquer les clauses de l'Armistice—en égard à la France métropolitaine qui en supporterait les conséquences.
2. Elle a reçu des ordres formels, et ces ordres ont été transmis à tous les commandants pour que, si après l'armistice les bâtiments risquaient de tomber entre les mains de l'adversaire ils seraient conduits aux États-Unis ou sabordés. (Voir Message de l'Amirauté, du 24/6.)
3. Ces ordres seront exécutés.
4. Les bâtiments qui sont actuellement à Oran et Mers-el-Kebir ont commencé depuis hier, 2 Juillet, leur démobilisation (réduction des équipages). Les hommes originaires de l'Afrique du Nord ont été débarqués.

TRANSLATION

1. The French Fleet cannot do otherwise than apply the clauses of the Armistice—on account of the consequences which would be borne by Metropolitan France.
2. Formal orders have been received, and these orders have been sent to all Commanding Officers, so that if, after the Armistice, there is risk of the ships falling into enemy hands they would be taken to the U.S.A. or scuttled. (See Admiralty Message 24/6.)
3. These orders will be carried out.
4. Since yesterday, 2nd July, the ships now at Oran and Mers-el-Kebir have begun their demobilisation (reduction of crews). Men belonging to North Africa have been disembarked. (Encl. 4, M.016021/40)

APPENDIX F

Copy of secret and personal orders from Admiral Darlan, handed to Captain Holland by Admiral Gensoul

FLOTTE DE L'ATLANTIQUE, ÉTAT-MAJOR,
le 24 Juin 1940.

Clauses Armistice vous sont notifiées en clair par ailleurs. Je profite des dernières communications que je peux transmettre en chiffré pour vous faire connaître ma pensée sur ce sujet.

1. Les navires de guerres demobilisés doivent rester français avec pavillon français, équipage réduit français séjournant dans port français metropole ou colonies.

2. Précautions secrètes d'auto-sabotage doivent être prises pour qu'ennemi ou étranger s'emparant d'un bâtiment par la force ne puisse pas s'en servir.

3. Si Commission Armistice chargée d'interpréter texte décidait autrement que dans § 1, au moment d'exécuter cette décision nouvelle, navires de guerre seraient sans ordre nouveau, soit conduits États-Unis, soit sabordés, s'il ne peut pas être fait autrement, pour les soustraire à l'ennemi. En aucun cas ils ne devront être laissés intacts à l'ennemi.

4. Navires ainsi réfugiés à l'étranger ne devront pas être utilisés à opérations guerre contre Allemagne ou Italie sans ordres du C.E.C., F.M.F. (1255/24/6).

p.o. le Capitaine de Vaisseau Danbé, Chef d'État-Major,
T. DANBÉ

TRANSLATION

The clauses of the Armistice are notified to you *en clair* by other means. I take advantage of these last communications that I can send you in cypher to inform you of my ideas on the subject.

1. Demobilised French warships should remain French under French flag with reduced French crews and berthed in French metropolitan or colonial ports.

2. Secret sabotage precautions should be taken so that neither enemy nor foreigner attempting to take the ship by force would be able to use her.

3. If the Commission interprets the terms of the Armistice other than as shown in para. 1, at the moment of executing this new decision, warships should without other orders be taken to the United States of America, or scuttled if it is not possible to do otherwise, in order to deny them to the enemy. In no case must they be allowed to fall into enemy hands intact.

4. Ships thus taking refuge in foreign lands must not be used in operations of war against Germany or Italy without the orders of the C.-in-C., F.M.F. (1255/24/6)

APPENDIX G

Instructions from French Admiralty to Admiral Gensoul, 1430, 3rd July 1940, as intercepted by the British Admiralty

(A.M. 1613/3/7/40)

FROM: Admiralty.

TO: S.O. Force "H".

Following received from French Admiralty to Admiral, Oran, timed 1330/3 G.M.T.

(*Begins*) You will inform the British representative that the Commander-in-Chief has given orders to all French Naval Forces in the Mediterranean to join you immediately in fighting order. You are empowered to give orders to these forces. You are to answer force with force. Call in the submarines and aircraft if necessary. The Armistice Commission has been informed. Signed, LELUC. (*Ends*)

APPENDIX H

Ships engaged in bombardment of Bardia, with Commanding Officers and main armament

3rd January 1941

BOMBARDING FORCE A

BATTLESHIPS

<i>Warspite</i>	eight	15-inch	Captain D. B. Fisher, C.B.E. (Flag of C.-in-C., Admiral Sir Andrew B. Cunningham, K.C.B., D.S.O.)
	eight	6-inch	
<i>Valiant</i>	eight	15-inch	Captain C. E. Morgan, D.S.O.
	twenty	4·5-inch	
<i>Barham</i>	eight	15-inch	Captain G. C. Cooke
	twelve	6-inch	

DESTROYERS

<i>Ilex</i>	four	4·7-inch	Captain H. St. L. Nicolson, D.S.O.
<i>Greyhouna</i>	four	4·7-inch	Commander W. R. Marshall-A'Deane, D.S.C.
<i>Juno</i>	six	4·7-inch	Commander St. J. R. J. Tyrwhitt
<i>Janus</i>	six	4·7-inch	Commander J. A. W. Tothill, D.S.C.
<i>Griffin</i>	four	4·7-inch	Lieutenant K. R. C. Letts

A.A. PROTECTION AND SCREEN

A.A. CRUISER

<i>Calcutta</i>	eight	4-inch	Captain D. M. Lees, D.S.O.
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DESTROYERS

<i>Nubian</i>	eight	4·7-inch	Commander R. W. Ravenhill
<i>Mohawk</i>	eight	4·7-inch	Commander J. W. M. Eaton
<i>Dainty</i>	four	4·7-inch	Commander M. S. Thomas
<i>Voyager</i>	four	4-inch	Lieut.-Commander J. C. Morrow, R.A.N.

BOMBARDING FORCE W

MONITOR

<i>Terror</i>	two	15-inch	Commander H. J. Haynes, D.S.C.
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GUNBOATS

<i>Aphis</i>	two	6-inch	Lieut.-Commander J. O. Campbell, D.S.C.
<i>Ladybird</i>	two	6-inch	Lieut.-Commander J. F. Blackburn
<i>Gnat</i>	two	6-inch	Lieut.-Commander S. R. H. Davenport

IN SUPPORT

AIRCRAFT CARRIER

<i>Illustrious</i>	sixteen	4·5-inch	Captain D. W. Boyd, C.B.E., D.S.C. (Flag of Rear-Admiral A. L. St. G. Lyster, C.B., C.V.O., D.S.O.)
	18	Swordfish	
	15	Fulmar	

CRUISERS

<i>Gloucester</i>	twelve	6-inch	Captain H. A. Rowley
<i>York</i>	six	8-inch	Captain R. H. Portal, D.S.C.

APPENDIX I

Chronology of approach to Genoa and bombardment

8th-9th February 1941

8th February

- 1900 In position lat. $41^{\circ} 43' N.$, long. $4^{\circ} 58' E.$ Set course 050° , 21 knots.
- 2320 Obtained fix from Levant and Porquerolles Lights.
- 2330 Position lat. $43^{\circ} 40' N.$, long. $6^{\circ} 35' E.$ Altered course to 066° , 21 knots.

9th February

- 0400 *Ark Royal*, screened by *Duncan*, *Isis* and *Encounter*, detached.
- 0410 *Renown* and *Malaya*, screened by *Sheffield*, *Fearless*, *Foxhound*, *Foresight*, *Fury* and *Jersey*, altered course to 025° , 21 knots, in position lat. $43^{\circ} 20' N.$, long. $8^{\circ} 33' E.$
- 0517 Moonset.
- 0625 Eastern horizon getting light. Low mist.
- 0628 Rockets and H.A. fire observed at Spezia (presumably fired at minelaying aircraft).
- 0632 *Sheffield* catapulted first aircraft.
- 0640 Mountain peaks showing above mist ahead.
- 0645 Mountain top, presumed to be Mount Porto Fino, sighted above mist.
- 0649 Uncertain fix obtained on right and left "cut off" of Portofino headland.
- 0652 W/T silence relaxed. *Sheffield* catapulted second aircraft.
- 0653 Good fix obtained. "Open fire" predicted as 0715, in position 145° Genoa Lighthouse $10\frac{1}{2}$ miles. *Renown* in communication with spotting aircraft from *Ark Royal*.
- 0655 In position $221\frac{1}{2}^{\circ}$ Punta Di Portofino $6\frac{1}{2}$ miles. Altered course to 290° and reduced speed to 18 knots.
- 0659 Fire control table in *Renown* started. Position 150° Genoa Lighthouse 13 miles.
- 0705 *Malaya* catapulted aircraft.
- 0708 F.O. "H" made fire distribution signal "Area shoot".
- 0708 Altered course to 270° .
- 0708 *Malaya* in communication with own aircraft.
- 0710 *Renown's* aircraft reports "No battleships present".
- 0710 *Sheffield* in communication with both her aircraft.
- 0711 *Malaya* in communication with aircraft from *Ark Royal*.
- 0712 Check position for *Renown's* fire control table 152° Genoa Lighthouse $10\frac{1}{2}$ miles.
- 0713 Altered course to 290° .
- 0714 "Open fire" ordered.
- 0714 $\frac{1}{2}$ *Renown* opened fire. (Area B)
- 0714 $\frac{1}{2}$ *Sheffield* opened fire. (Area C)
- 0715 *Malaya* opened fire. (Area A) } Position: $145\frac{1}{2}^{\circ}$ Genoa Lighthouse $10\frac{1}{2}$ miles.
- 0716 H.A. barrage firing by A/A guns at Genoa.
- 0721 Altered course to 266° .
- 0722 First salvo from shore batteries fired at bombarding force.
- 0724 *Renown's* secondary armament opened fire (Area D).
- 0724 *Renown* ordered to shift target to Area F.
- 0727 *Foresight* and *Jersey* ordered to make smoke to screen bombarding force.
- 0733 *Renown* ordered to shift target back to Area B.
- 0736 *Foresight* and *Jersey* ordered to stop making smoke.
- 0741 *Sheffield* shifted fire to tanker under way outside harbour.
- 0744 *Renown's* secondary armament ceased fire (out of range).
- 0745 "Cease firing."
- 0745 Spotting aircraft ordered to return to base.
- 0745 Altered course to 180° ; increased speed to 22 knots.
- 0747 Aircraft GR reports to *Renown*—"Magnificent".
- 0919 *Ark Royal* rejoined F.O. "H".

APPENDIX J

Remarks on the navigational aspect of the bombardment of Genoa

9th February 1941

1. Astronomical Data—9/2/41

MOONSET	Beginning of		SUNRISE
	NAUTICAL TWILIGHT	CIVIL TWILIGHT	
0517	0626	0701	0735

2. Requirements

- Approach under cover of darkness until the last possible moment.
- To open fire at the earliest moment after the light enabled aircraft to spot and to pass the necessary information.
- Renown* and *Malaya* to open fire simultaneously inside *Malaya's* maximum range (about 21,000 yards).
- Ships to keep outside 250 fathoms.
- "A" arcs to be open throughout the bombardment run.
- A run of about half an hour between "Open fire" and "Cease fire".

3. The Plan

- To obtain a land fix from the French lights in the vicinity of Hyères Island (about 150 miles from Genoa) shortly before midnight.
- To steer thence towards the centre of the Gulf of Genoa in order to avoid possible coastwise shipping, and also to increase the distance from the western shore of the Gulf, so that in the morning the force should not be in sight from it silhouetted against the eastern glow.
- To alter course to the northward about 0400.
- To make a landfall at Portofino headland, which appeared to be the only prominent landmark likely to be identifiable in the early light.
- Study of morning light conditions, including a trial approach carried out towards *Malaga* carried out at dawn 29th January, and experience gained from the spotting table indicated that 0715 would be the earliest moment for opening fire, and 0640 was considered the earliest, under the most favourable light conditions, that a fix would be obtainable at about 12 miles.

4. The Landfall

The time and position of the landfall was therefore selected so that:—

- The force would reach the position to open fire at 0715.
- A fix would be obtained sufficiently early for the time of "Open fire" to be predicted at least 20 minutes in advance.
- The ships would be on the bombardment course some minutes before they were required to open fire.
- The 250-fathom line would not be crossed.

5. The Bombardment Run

Two alternative runs were allowed for:—

- If battleships were reported present—keeping just inside *Malaya's* maximum range, to increase the angle of descent.
- If battleships were not present—dog-legged, keeping as close as possible to the 250-fathom line, to allow *Renown's* secondary armament to fire.

6. General Remarks

Navigationally, the operation worked out in close accordance with the pre-arranged plan.

The weather conditions were: wind N.W.4, sea 41, while crossing the Gulf of Lyons; and wind light and variable, sea slight, in the Gulf of Genoa. The resulting sets were such as might be expected, *viz.*, 1 knot to the S.E. while crossing the Gulf of Lyons, and $\frac{1}{2}$ knot to the westward in the Gulf of Genoa. The margin allowed between obtaining a fix and having to alter (short of 250 fathoms) to the bombardment course was barely sufficient. In actual fact, the alteration was made two minutes after the fix. This was due to the coastal mist which obscured the features of the shore.

APPENDIX K

Policy for gun targets : Genoa

The order of priority of targets for bombardment at Genoa was laid down by Admiral Somerville as follows:—

- | | |
|-------------------------------------|--|
| <i>a. Littorio-Class battleship</i> | <i>b. Cavour-Class battleship</i> |
| <i>c. Cruiser</i> | <i>d. Certain areas ashore¹</i> |

It was realised that the Italian warships, if present, would probably not be located until reported by spotting aircraft, just before the commencement of the bombardment. Five possible situations were therefore provided for, as follows:—

<i>Italian Ships Present</i>	<i>Target to be Engaged</i>	<i>Remarks</i>
I. 1 <i>Littorio</i> -Class, or 1 <i>Cavour</i> -Class	<i>Renown</i> and <i>Malaya</i> concentrate on the battleship; A.P. shell.	In all cases, <i>Sheffield</i> to engage Area C ¹ with H.E. shell, but to be prepared to engage forts or cruisers if so ordered. <i>Renown</i> 's secondary armament to engage Area D ¹ with H.E. shell.
II. 1 Cruiser	<i>Malaya</i> engage cruiser: A.P. shell. <i>Renown</i> engage Area B ¹ : H.E. shell.	
III. 1 <i>Littorio</i> -Class, and 1 <i>Cavour</i> , or 1 Cruiser	<i>Renown</i> and <i>Malaya</i> concentrate on <i>Littorio</i> (A.P. shell), unless other ship is out of dock and able to retaliate. In this case, <i>Malaya</i> engage <i>Littorio</i> : <i>Renown</i> engage other ship.	
IV. 1 <i>Cavour</i> -Class and 1 Cruiser	As for Case III above.	
V. No warships	<i>Renown</i> engage Area B ¹ : H.E. shell. <i>Malaya</i> engage Area A ¹ : C.P.C. shell.	

See Appendix L and Plan 9.

APPENDIX L

Target areas at Genoa

(See Plan 9)

Six target areas were established. These areas were framed with a view of keeping the fire, as far as possible, clear of the residential quarters of the town.

Area A

The eastern end of the Inner Harbour and Porto Nuovo, including the dry dock area, Molo Vecchio (Calata Nord and Calata Gadda), municipal warehouses, grain silos, Ponte Parodi and Ponte dei Mille. (*Malaya*)

Area B

Factories and workshops on the western bank of Torrente Polcevera, including Ansaldo's electrical and ordnance works,¹ and new factories to the northward. (*Renown*)

Area C

Gasometers, shipbuilding and fitting-out workshops and railway lines on each bank of Torrente Polcevera, including Ansaldo's boiler, engine and ordnance works, and refineries to the northward. (*Sheffield*)

Area D

Area including power station (Ponte San Giorgio), Ponte Rubiattino, and oil tanks and stores on the eastern side of Calata Canzio. (*Renown* secondary armament)

Area F

The western side of the Inner Harbour and Porto Nuovo, and the Vittorio Emanuele III Basin.

Area G

The wharves in Benito Bacino XXVIII Ottobre.

APPENDIX M

Bombardment of Genoa—Air targets

In view of the lack of definite information as to the presence of Italian warships at Genoa and/or Spezia, the original intention of dawn attacks against the highest priority battleship or cruiser was abandoned; and the T.S.R. striking force was ordered to concentrate its attack on the Azienda refinery at Leghorn. In case of difficulty in locating this target, alternatives were given.

¹ Actually these were Cornigliano's works, but they were referred to throughout by the British as Ansaldo's.

APPENDIX N

Importance of targets at Genoa, etc.

The following notes on the importance of the targets attacked on 9th February at Genoa, Leghorn and Pisa may be of general interest.

1. *Ansaldo's Electric Works.* Here are produced electrical goods of all sorts for war and merchant ships, including apparatus for the turrets of Italian battleships. (Target No. 7.)

2. *Ansaldo's Boiler, Engine and Ordnance Works.* Guns up to 15-inch and boilers of all sizes are manufactured, also marine engines; and internal combustion engines of all sizes are made. (Target No. 4.)

3. *Main Power Station.* An important station which provides power for State Railways and harbour works and part of the town.

4. *Dry Docks and round Inner Harbour.* Here is one of the only three docks which can take a *Littorio*-Class Battleship and another which can take a *Cavour*-Class. Round the Inner Harbour are a number of warehouses, merchant ships and repair facilities and cranes, etc. (On plan from Target No. 3 to Target No. 6 to Target No. 2.)

5. *Oil Tanks.* Eight large tanks of 40,000 tons capacity, 8 smaller tanks, and tanks for 300 tons of lubricating oil. (Target No. 1.)

6. *Marshalling Yard.* This is extensive and sited to north and west of Target No. 6.

7. *Leghorn Refinery.* Anic refinery. This is the only one believed to be working: the crude oil from Albania and Roumania is refined here to aviation spirit, motor spirit and fuel oil.

8. *Pisa Junction.* This is an important railway junction: here the coast line from Spezia to the south meets the loop to Florence, Bologna and Venice.

9. *Pisa Airfield.* A large airfield, 1,500 by 1,000 yards, with runway: four large hangars and workshops.

APPENDIX O

Estimated damage inflicted by bombardment of Genoa

From reports available up to 26th February 1941, the following appears to be some of the damage inflicted. (See Plan 9.)

1. Considerable damage to *Ansaldo's ordnance and electrical works*; about twenty-five 15-inch H.E. shell appear to have hit this factory. Large explosions and considerable fires were seen. (Target No. 7.)¹

2. Damage to *factories and railways* on both banks of the Torrente Polcevera, for the last mile of its course before reaching the sea.

3. Considerable damage to *Ansaldo's boiler, engine and ordnance works*, and *factories and fitting-out yards* adjacent. Large fires and explosions were seen in this area, in which about 160 6-inch H.E. shell fell. (Target No. 4.)²

4. At least one *oil tank* on Calata Canzio hit and set on fire. (Target No. 1.)

5. A particularly heavy explosion occurred either in the *power station, or seaplane base*. (Target No. 5.)

6. Fires and explosions occurred in the *dry dock area*. (Target No. 2.)

7. Large fires on the *Molo Vecchio (Calata Gadda and Calata Nord)*.

8. Very large fires in the area just *west of the Ponte Biagio Assereto* and Ponte Caracciolo.

9. A *merchant ship* lying between Ponte Eritrea and Ponte Etiopia was hit by 15-inch H.E., causing a large explosion inside the vessel.

No Italian communiqué on the subject was issued until 30 hours after the bombardment, which was in itself an indication of its success, both as regards material damage and moral effect. Such reports from Italian and neutral sources as became available tended to confirm the above estimate of the damage. One report stated that the bombardment of Genoa made an even deeper impression on the Italians than the capture of Benghazi.

¹ These works were actually Cornigliano's steel-works. Post-war information reveals that the following damage was suffered:—

a. Projectile section: (i) total destruction of one furnace,
(ii) breaking of water tank.

b. General "shop": Part of offices slightly damaged.

c. Heating apparatus (gas plant): Two shells exploded in vicinity; fragments tore in several places gas-generating boilers; also caved in cover of the gun furnace (without, however, damaging the furnace itself).

² This damage was actually limited to a few hits on the barracks and new fitting-out yard; negligible damage to some of the buildings.

APPENDIX P

Bombardment of Tripoli : Ships engaged in Operations M.D.2 and M.D.3, with Commanding Officers and main armament

18th to 23rd April 1941

(Names of the Commanding Officers are taken from the contemporary Navy Lists.)

BATTLESHIPS

1ST BATTLE SQUADRON

Warspite: eight 15-inch
eight 6-inch
Barham: eight 15-inch
twelve 6-inch
Valiant: eight 15-inch
twenty 4·5-inch

Captain D. B. Fisher, C.B.E. (Flag of Admiral Sir A. B. Cunningham, G.C.B., D.S.O.)
Captain G. C. Cooke (Flag of Rear-Admiral H. B. Rawlings, O.B.E.)
Captain C. E. Morgan, D.S.O.

AIRCRAFT CARRIER

Formidable: sixteen 4·5-inch
21 Albacores
12 Fulmars

Captain A. W. La T. Bisset (Flag of Rear-Admiral D. W. Boyd, C.B.E., D.S.C. (*Acting*))

CRUISERS

7TH CRUISER SQUADRON

Orion: eight 6-inch

Perth: eight 6-inch
Ajax: eight 6-inch
Gloucester: twelve 6-inch
Phoebe: eight 5·25-inch

Captain G. R. B. Back (Flag of Vice-Admiral H. D. Pridham-Wippell, C.B., C.V.O.)
Captain Sir P. W. Bowyer-Smyth, Bt.
Captain E. D. B. McCarthy
Captain H. A. Rowley
Captain G. Grantham

A.A. SHIP

Calcutta: eight 4-inch

Captain D. M. Lees, D.S.O.

DESTROYERS

2ND DESTROYER FLOTILLA

Encounter: four 4·7-inch
Hasty: four 4·7-inch
Havock: four 4·7-inch
Hereward: four 4·7-inch
Hero: four 4·7-inch
Hotspur: four 4·7-inch

Lieut.-Commander E. V. St. J. Morgan
Lieut.-Commander L. R. K. Tyrwhitt
Lieut. G. R. G. Watkins
Lieut. W. J. Munn
Commander H. W. Biggs, D.S.O.
Lieut.-Commander C. P. F. Brown

10TH DESTROYER FLOTILLA

Defender: four 4·7-inch
Diamond: four 4·7-inch
Vendetta: four 4-inch

Lieut.-Commander G. L. Farnfield
Lieut.-Commander P. H. Cartwright
Lieut.-Commander R. Rhoades, R.A.N.

14TH DESTROYER FLOTILLA

Griffin: four 4·7-inch
Jaguar: six 4·7-inch
Janus: six 4·7-inch
Jervis: six 4·7-inch
Juno: six 4·7-inch
Kimberley: six 4·7-inch
Kingston: six 4·7-inch
Nubian: six 4·7-inch

Lieut. K. R. C. Leith
Lieut.-Commander J. F. W. Hine
Commander J. A. W. Tothill, D.S.C.
Captain P. J. Mack, D.S.O. (Capt. (D), 14th D.F.)
Commander St. J. R. J. Tyrwhitt
Lieut.-Commander J. S. M. Richardson, D.S.O.
Lieut.-Commander P. Somerville, D.S.O., D.S.C.
Commander R. W. Ravenhill

SLOOPS

Auckland: eight 4-inch
Flamingo: six 4-inch

Commander J. G. Hewitt, D.S.O.
Commander R. J. O. Otway-Ruthven

SUBMARINES

1ST SUBMARINE FLOTILLA

Truant
Triumph

Lieut.-Commander H. A. V. Haggard
Lieut.-Commander W. J. W. Woods

APPENDIX Q

STORESHIP

Breconshire

Captain C. A. G. Hutchison (*Ret.*)

MERCHANT SHIPS

City of Lincoln
Clan Ferguson
City of Manchester
Perthshire

Convoy M.E.7

British Science
British Lord

APPENDIX Q

Shipping in Tripoli Harbour

20th April 1941

The following information of the position of shipping at Tripoli, obtained by air reconnaissance from Malta on 20th April, was communicated:—

a. Four destroyers were moored close together stern on to the Karamanli Mole.

b. In the Naval Basin—one destroyer secured alongside the western side; two stern on to the centre of the wall; one alongside the N.E. corner.

c. Custom House—three ships, loading motor transport, alongside the south side; one on the east side of the projecting jetty.

d. Karamanli Mole—two ships alongside the northernmost quay.

e. Details were given, with bearings and distances in cables from the Spanish Fort Lighthouse, of the positions of eight ships at single anchor or buoys; three ships moored with their sterns in the direction of 140° and one ship moored with her stern in direction west. (See Plan 13.)

In addition to the above information, the air photographs revealed the presence of 10 Cant. Z.501 aircraft, five Cant. 506s, and probably one D.O.24; also of a hospital ship at anchor outside the harbour.

APPENDIX R

Bombardment of Tripoli: Extracts referring to the position of H.M.S. *Truant*

Orders (Appendix IV)

"*Truant* has been ordered to fix her position 360° Ras Tajura 4 miles in daylight 20th April, and to be on the surface in that position to act as a lighthouse and asdic beacon, commencing 21st April."

Commander-in-Chief's despatch:

"The navigational approach was conducted with great accuracy and, up to the time of altering course round H.M.S. *Truant*, proceeded exactly according to plan. The firework display caused by the preliminary air bombing was reassuring at this time, as also were continuous soundings which enabled the slight inaccuracy in H.M.S. *Truant's* position to be allowed for."

"H.M.S. *Barham* failed to appreciate that H.M.S. *Truant*, and consequently the Fleet, were somewhat closer inshore than had been intended and there is little doubt that all her salvoes fell well over the harbour and in the town. It is not known whether H.M.S. *Barham* was sounding during the final approach."

H.M. S/M Truant Report, May 1:

Patrol report, 13 April-1 May, 1941
M.010792/41

- 18th April 0300. Received orders to act as navigational beacon off Ras Tajura (10 miles east of Tripoli) for British surface forces. Proceed west with despatch.
- 20th April 0300. Dived and proceeded north-west to position 360° Ras Tajura, 4 miles.
- 20th April 1830. Bottomed 4 miles north of Ras Tajura.
- 21st April 0250. Surfaced to act as navigational beacon.
0345. Battle Squadron passed close astern.
0415. Bombardment of Tripoli started.
0545. Dived and closed the coast.¹

Commander-in-Chief's narrative:

"*Truant* had been stationed 4 miles north of Ras Tajura throughout the night to provide a navigational beacon. She did this most efficiently, and at 0410 her light was sighted ahead about 7 miles. *Havock* made A/S contact with her at 0414. Course was altered to 240° at 0433 and to 270° at 0438; leaving *Truant* 2 cables on *Warspite's* starboard beam. The Fleet was then slightly inside the firing position and course was altered to 290°, which was maintained throughout the run westward.

"At 0500 there was full illumination of the harbour from 10 to 12 flares, and at 0503 the battlefleet opened fire with 15-inch and 6-inch at a range of 11,000 yards. *Warspite* was then estimated to be in position adjusted for navigational fix."

¹ The above times differ from those of the Fleet.

APPENDIX R

Analysis by the Rear-Admiral, 1st Battle Squadron:

TIMED NARRATIVE

- " 0410. *Truant's* light sighted.
0426. Altered course 240° to pass about 4 cables to S.E. of *Truant*.
0437. Altered course 270°.
0445. Altered course 290°.
0502. Battlefleet opened fire."

INITIAL POSITION

"The initial position for the bombardment was 046° Tripoli Light 15,000 yards. It would appear that the bombarding force actually passed about 1 mile to the southward of this position. *Warspite* and *Valiant* adjusted their initial range and bearing accordingly; *Barham* assumed that the Fleet passed through the position ordered and fired throughout with a range considerably greater than *Warspite* and *Valiant*."

BARHAM

"*Barham* fired throughout with a range and bearing calculated from the initial position ordered and not from the geographical position. None of her salvoes was observed by aircraft, but *Barham* was further misled by receiving a report 'O.K.' for two of her early salvoes."

Narrative of H.M.S. Barham

"From the star sights at dusk on 20th April combined with the run on, *Barham* estimated that the Fleet passed exactly through the intended 0300 position. This was further confirmed when the 100 fm. and 90 fm. were reached at the times expected, thus giving a very good check for latitude. The bearing of the Beacon Submarine when sighted also agreed with the Plot and 'clinched' the impression that the intended run-in was being carried out.

"Under these circumstances it had previously been decided that the initial position of the Flagship on opening fire, corrected in bearing and range for P.I.L., would be used for *Barham's* initial salvo. The alteration of course to 290°, instead of 270°, subsequently amended this slightly and was the reason for a large initial range being applied and the fact that at no time was the 6-inch armament considered to be within range."

"Moreover, it is now considered that H.M.S. *Truant* was to the south and east¹ of her position from this cause."

¹ According to R.A., 1st B.S. plan, *Truant* was nearly 1½ miles westward of her ordered position. (See Plan 12)

APPENDIX S

Bombardment of Tripoli: analysis by the Rear-Admiral, 1st Battle Squadron

The following remarks by Rear-Admiral H. B. Rawlings are quoted from his analysis of the bombardment:—

“The number of salvoes spotted was disappointing: it is clear that the smoke screen made by the enemy and the dust clouds caused by explosions defeated the flares everywhere the smoke and dust lay. Of the 57 salvoes fired by the *Valiant*, two only were spotted—due probably to the above causes.

“In the case of the *Barham*, the initial range was considerably in error. From the beginning concentrated illumination was provided over the harbour and no provision was made for illumination of areas at a distance from the targets. The result was that not one of the *Barham*'s 53 salvoes was observed. Having received two reports of ‘O.K.’ in the early stages, the *Barham* had a certain amount of justification for assuming that her salvoes were falling in the right area. Had a lower degree of concentration of illumination over the targets been accepted at the commencement and the flares been spread over a wider area until all ships had been spotted on to the target, it is possible that the *Barham*'s salvoes might have been observed.”

APPENDIX T

Bombardment of Tripoli: ammunition expenditure

The following is the expenditure of ammunition by the bombarding ships:—

<i>Warspite</i>	15-INCH: 135 C.P.C., set non-delay, reduced charges 6-INCH: 106 C.P.C., set non-delay, full charges	
<i>Barham</i>	15-INCH: 33 salvoes in Run I 15-INCH: 20 salvoes in Run II	} Number of rounds fired not reported
<i>Valiant</i>	15-INCH: 208 (197 A.P.C., 5 H.E., 6 C.P.C.), reduced charges 4·5-INCH: 602 S.A.P.	
<i>Gloucester</i>	6-INCH: 456 C.P.C.	
<i>Hero</i>	4·7-INCH: 99	
<i>Hasty</i>	4·7-INCH: 100	
<i>Havock</i>	4·7-INCH: 90	
<i>Hotspur</i>	4·7-INCH: 45	

The number of rounds fired by the *Janus* and *Hereward* is not mentioned in the report.

If it be estimated that the *Barham* in 53 salvoes fired about the same number of 15-inch rounds as the *Warspite* (calculating a rough average of 2·5 rounds per salvo), an approximation of the total expenditure can be arrived at:—15-inch—478; 6-inch—562; 4·7-inch—334; 4·5-inch—602.

APPENDIX U

Bombardment of Tripoli: remarks from H.M.S. *Formidable's* report (Captain A. W. La T. Bisset)

(i) 17 Fulmars were available for the operations after the initial landing on, in which two were damaged.

(ii) 156 flights were made by fighters, of which 136 were launched by Assisted Take-off Gear.

(iii) Total flying time of fighters was 337 aircraft hours.

(iv) On the evening of the last day (22nd April), 14 fighters were in the air at one time for offensive operations.

(v) Not counting the original landing on and the operations of the night flare-dropping force, the Fleet had to make 16 alterations of course during the five days for operating aircraft, the actual time into the wind between "1st off and last on" being 66 minutes. On other occasions flying on was arranged to get in with a leg of the zig-zag.

"These figures reflect credit on the skill and endurance of the Pilots and on the maintenance work carried out . . ."

The work of the Fighter Direction staff was excellent throughout and enabled the fighters to get in a number of attacks on enemy aircraft.

During the operations, the fighters accounted for:—

8 enemy aircraft shot down.

2 enemy aircraft probably shot down.

1 enemy aircraft severely damaged.

APPENDIX V

Estimated damage inflicted by bombardment of Tripoli

(See Plans 13 and 14)

*Estimated damage based on evidence
of at least two witnesses
in each case*

*Corroboration by photographs taken on
21st April, compared with those
taken on the 20th*

AREAS A AND C. Firing ships— *Warspite and Barham:*

1. Three merchant ships in the Naval Basin were set on fire, one of which subsequently sank.
2. A ship in area D (see Plan 14), hit by 15-inch shell, exploded and burnt out.
3. A ship, 300 yards off Spanish Quay, hit by 15-inch shell, sank almost instantly.
4. Two certain and two probable 15-inch salvoes fell on the warehouses and offices on Spanish Quay, causing large columns of smoke. The Spanish Quay was hit continuously for ten minutes, probably by 6-inch salvoes.
5. Two 15-inch salvoes fell on the narrow neck of land joining the Spanish Quay to the mainland.
6. Several 15-inch salvoes fell on the foreshore between the Governor's Office and the Spanish Quay, probably hitting the former.

An oil tanker, about 300 ft. long, had completely disappeared. This ship was probably the one seen to be on fire and exploded, as the position agrees.

A merchant ship, 250 ft. long, was lying on her beam ends close to Spanish Quay.

On the Spanish Quay, two buildings—one 110 ft. and one 100 ft. in length—were demolished. A small breakwater was badly breached, and another in the boat harbour was also breached.

AREA B. Firing ship—*Valiant:*

7. Karamanli Mole was hit repeatedly by 6-inch shell. A destroyer at the destroyers' berth was hit and four others were probably seriously damaged.
8. A ship outside the harbour, off the Karamanli Mole, was hit and set on fire.
9. A large building, either the Army H.Q. or the Government Offices, was demolished.
10. A very large fire was started in the Oil Fuel Depot.
11. Smoke was observed from many buildings in the area between the Karamanli Mole and the Oil Fuel Depot.

A destroyer was missing from the group that had been moored stern on to the Karamanli Mole.

A merchant ship, 250 ft. long, was aground outside the Karamanli Mole with her bow partly submerged.

A large building in the eastern portion of the town was heavily hit.

A large building, possibly a workshop or factory, situated to the south of the foot of the Karamanli Mole, showed signs of having been on fire.

AREA D. Firing ship—*Gloucester:*

Smoke was observed from at least three ships in this area (south-east sector of harbour), either a smoke screen or caused by damage.

APPENDIX W

AREAS F AND G. Firing ship—*Barham*
(alternative targets):

12. Three or four 15-inch salvos fell near or on the Railway Station.

13. Fires were observed near the Railway Station.

14. A 15-inch salvo fell near or on the Power Station, causing vivid blue and yellow flashes.

A salvo had apparently fallen near the Power Station, but no damage was visible.

The observers did not see any ships alongside the Spanish Quay.

Note.—As the photographs did not cover all the oil tanks and the A.G.I.P. Depot, the damage to these, if any, was unknown.

APPENDIX W

Italian information concerning the damage at Tripoli

According to information contained in an Italian A.R.P. report dated 29th April 1941, numerous salvos struck the city and the harbour. Altogether about 100 dwelling houses were hit. The principal buildings named as having been hit were:—Banca d'Italia, Banca di Napoli, Banca di Sicilia, Post Office, Municipal Baths, Church of the Madonna della Guardia, Palazzo of the R. Prefettura, Provident Society and the Grande Albergo. The casualties are stated as having been 100 civilian dead and 300 wounded.

Lieutenant R. O. B. Long, R.N.V.R., who arrived in Tripoli on the day of its occupation (23rd January 1943), and examined captured documents, reported:—"It is clear that a very great impression was made by the Naval bombardments of the town and that confusion reigned throughout them. They do not appear to have done much damage (one report says that in the first bombardment all shells burst about 500 yards to the east of the targets in the fuel area), but the moral effect was tremendous and lasting." (N.I.D., 02162/43)

Plan 14 is constructed from an Italian plan which showed the following fall of shot on the land, the foreshore and the vessels in the harbour:—

15-inch calibre: 180

Lesser calibre: 190

Shots falling in the water were not recorded.

These figures represent only 37 per cent. of the 15-inch rounds fired and 12½ per cent. of those of lesser calibre (*see* Appendix T). It may be assumed that most of the projectiles not recorded on the Italian plan fell in the harbour and that the estimates of damage given in Appendix V are fairly reliable.

Information made available by the Italians since the war states that one torpedo boat, the *Partenope*, was damaged, one merchant ship (laden with fuel and bombs) sunk, and "a few others" damaged. Buildings on wharves and in the city suffered considerably.

APPENDIX X

Details of British naval aircraft

I. FIGHTER AIRCRAFT CAPABLE OF DECK LANDING

	<i>Sea Gladiator</i>	<i>Skua</i>	<i>Fulmar</i>	<i>Remarks</i>
Crew	1	2	2	The climb of these aircraft varied: for <i>Gladiator</i> and <i>Fulmar</i> it was $3\frac{1}{2}$ to $4\frac{1}{2}$ minutes to 10,000 feet; for <i>Skua</i> , $12\frac{1}{4}$ minutes.
Armament	four .303 F ¹ one .303 R ² one 500 lb., or one 250 lb., bomb	four .303 F one .303 R one 500 lb., or one 250 lb., bomb	eight .303 F one 500 lb., or one 230 lb., bomb	
Whether dive bomber	No	Yes	No	
Fitted for observer navigation, W/T, and folding	No	Yes	No	
Maximum speed (knots)	213	195	230	
Endurance at maximum (approx.)	$\frac{3}{4}$ hour	2 hours	2 hours	
Max. endurance at economical speed	$2\frac{1}{4}$ hours	6 hours	6 hours ³	

II. RECONNAISSANCE AND STRIKE AIRCRAFT

	<i>Swordfish</i>	<i>Albacore</i>	<i>Walrus</i> ⁴	
Crew	3 recon. 2 strike	3 recon. 2 strike	3 recon.	
Armament	one .303 (or .3) front; one .303 (or .3) rear			
	Torpedo or bombs, 1,500 lb.	Torpedo or bombs, 1,500 lb.	Bombs, 500 lb.	
Capable of dive bombing	Yes	Yes	Limited	
Capable of torpedo attack	Yes	Yes	No	
Maximum speed (knots)	125	155	110	
Maximum endurance and range without extra tankage: Reconnaissance Strike Force	$5\frac{1}{2}$ hours 450 miles	6 hours 630 miles	$3\frac{1}{2}$ hours 300 miles	
Whether extra tankage	Yes	Yes	No	

¹ F = Fixed front gun.

² R = Rear free gun.

³ With extra tank.

⁴ Catapult ship aircraft.

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Warships, H.M. Ships, with main armaments and C.O.s employed off Mers-el-Kebir, 6 (note); at bombardments of Bardia, 18 (note), 21 (note), App. H; Genoa, 27 (note); Tripoli, App. P; FRENCH: ships engaged at Mers-el-Kebir, main armaments, 3 (note). ITALIAN: ships, 8th February, 1941, main armaments, 31 (note)

Warspite, H.M.S., battleship, flag of C.-in-C., Mediterranean, bombards Bardia, 21² (and note), 23, 24–26; 40, 42, 43; bombards Tripoli, 45–48, 49, 50, Apps. H, P, R, T, V

Wavell, General Sir Archibald, G.C.B., C.-in-C., Middle East, 17; takes offensive, December, 1940, 24, 38

Weather, air attack on French prevented by fog, 12; 14, 22, 26; postpones Opn. “Result”, 28 (and note); during Opn. “Grog”, 29, 30, 31, 36, 37; handicaps Italian defences, Genoa, 37; at bombardment of Tripoli, 45, 49

Wells, Vice-Admiral L. V., C.B., D.S.O., V.A. (A), 3; opposed to action against French Fleet, 4
West Indies, French, proposal to sail French Fleet to 4, 8 (and note), App. B
Weygand, French general, 1
Wireless telegraphy, failure in *Orion's* A/C, 20; 27; diversion, 29, 31
Wrestler, H.M.S., destroyer, 6 (note); relieves *Vortigern* off Oran, 8; engaged by shore batteries, 10; attacked by A/C, 12

York, H.M.S., cruiser, 25, App. H

Zero hour, for bombardments, see BOMBARDMENT

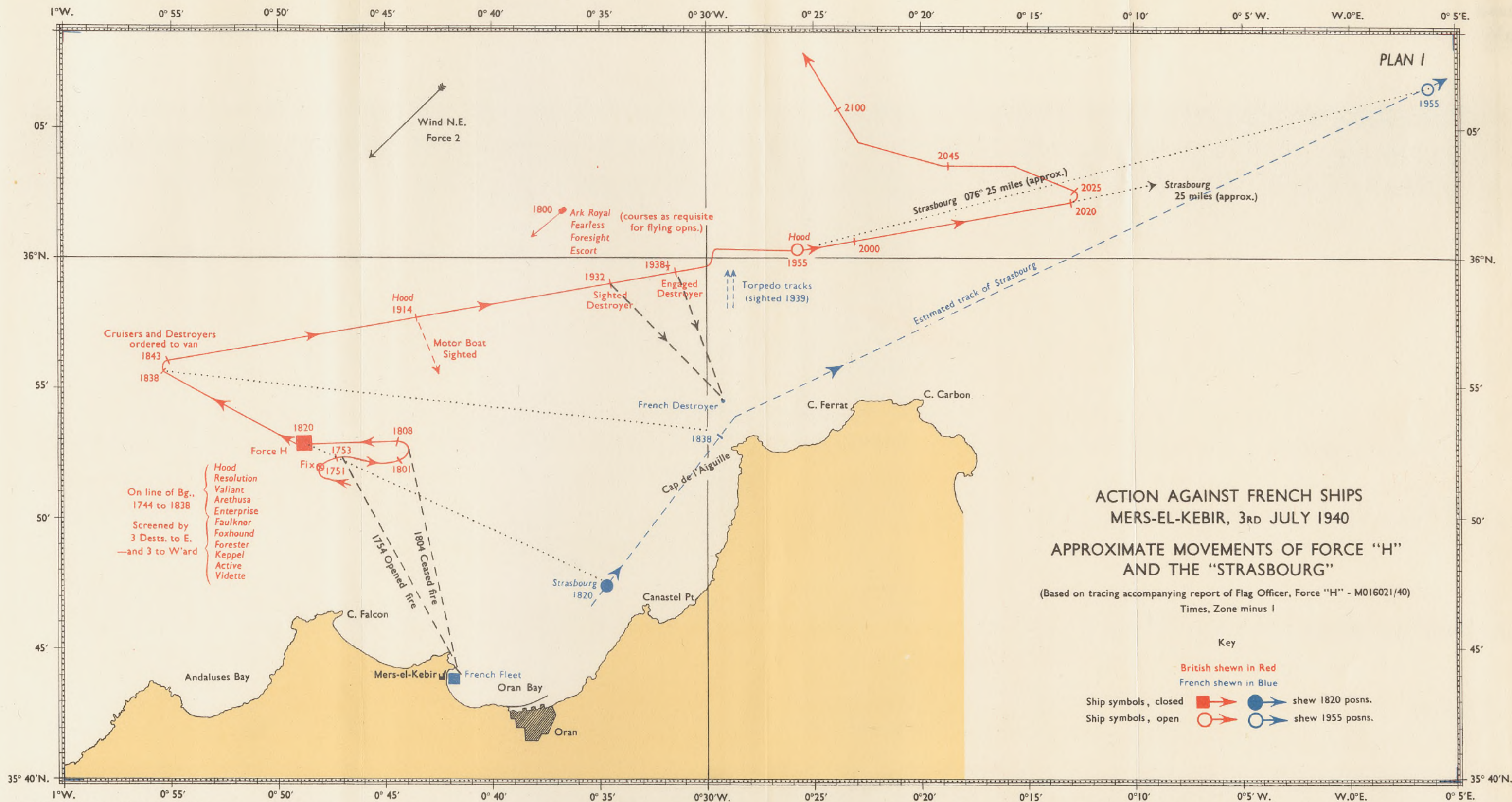
Zone time, 4 (note), 13 (note), 18 (note), 29 (note), 40 (note)

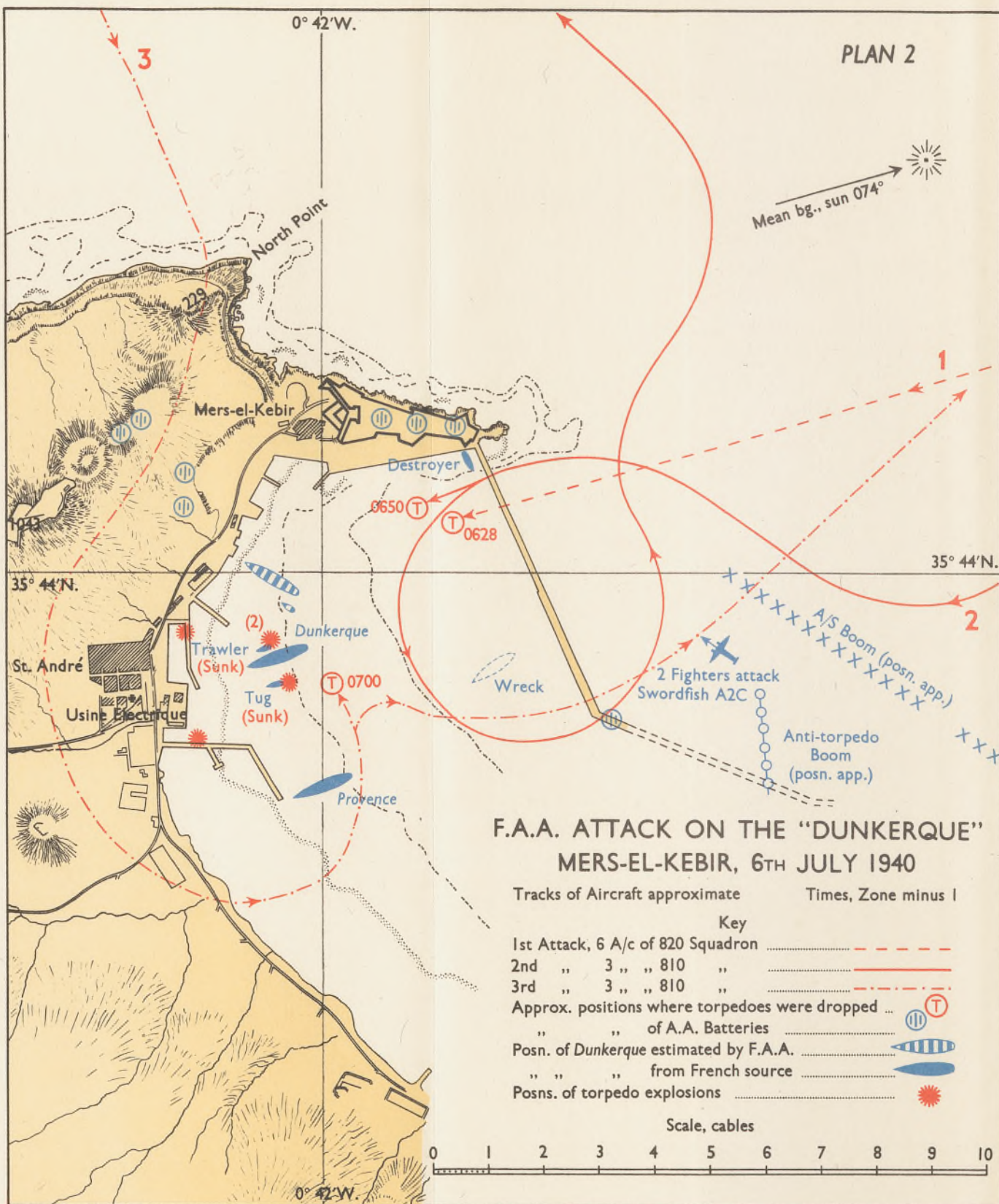
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MEDITERRANEAN AND BLACK SEA REFERENCE CHART

Frontiers shown as in 1937.
Ports at which there were Foreign Naval Authorities (1937)
are indicated thus



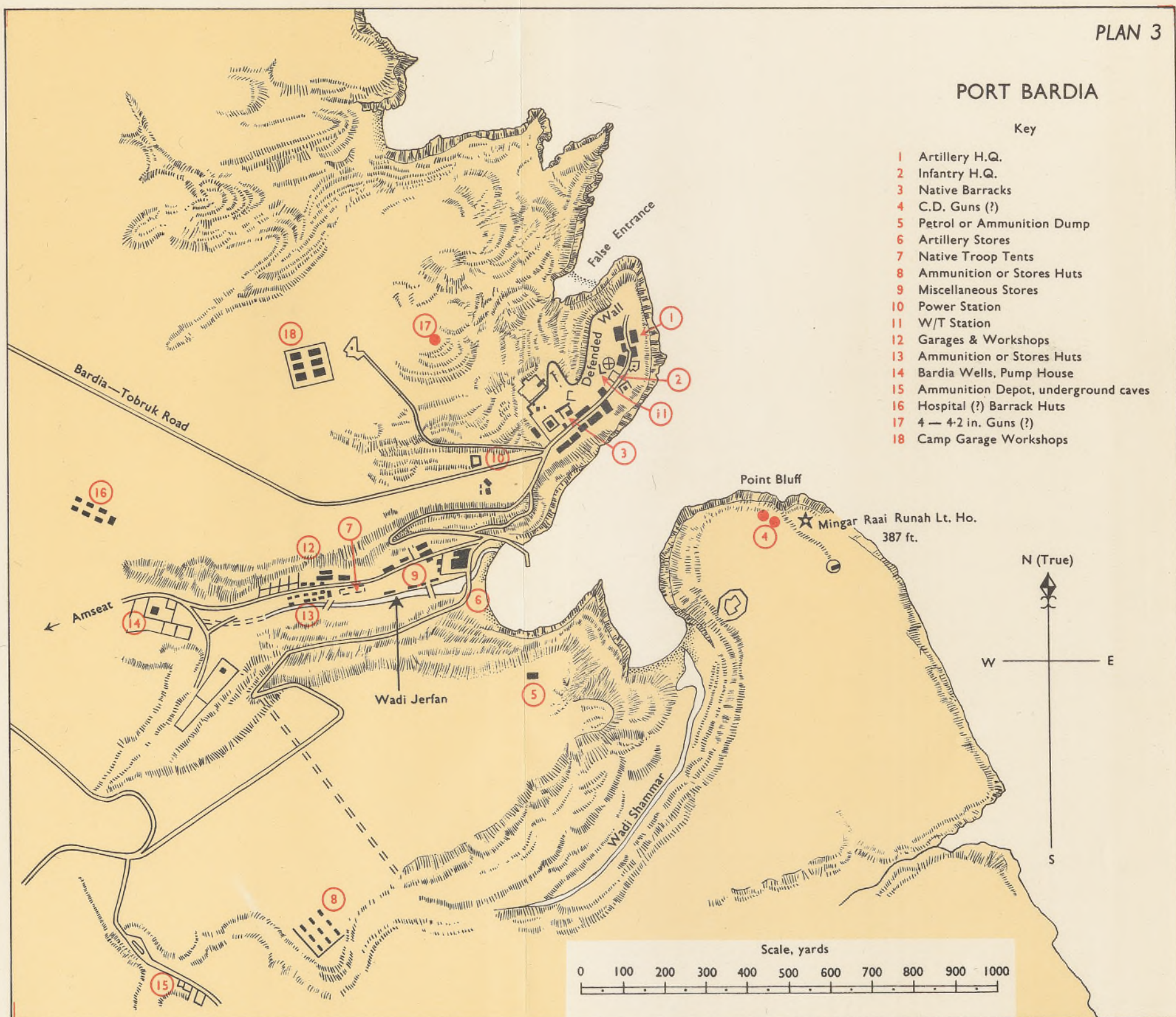




PORT BARDIA

Key

- 1 Artillery H.Q.
- 2 Infantry H.Q.
- 3 Native Barracks
- 4 C.D. Guns (?)
- 5 Petrol or Ammunition Dump
- 6 Artillery Stores
- 7 Native Troop Tents
- 8 Ammunition or Stores Huts
- 9 Miscellaneous Stores
- 10 Power Station
- 11 W/T Station
- 12 Garages & Workshops
- 13 Ammunition or Stores Huts
- 14 Bardia Wells, Pump House
- 15 Ammunition Depot, underground caves
- 16 Hospital (?) Barrack Huts
- 17 4 — 4.2 in. Guns (?)
- 18 Camp Garage Workshops



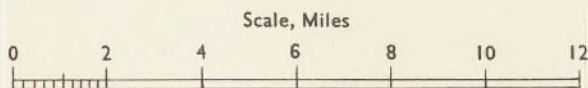


BOMBARDMENT OF BARDIA 21ST JUNE 1940

APPROXIMATE TRACK OF "ORION"

Times, Zone minus 2

Specific Targets (See Plan 3)



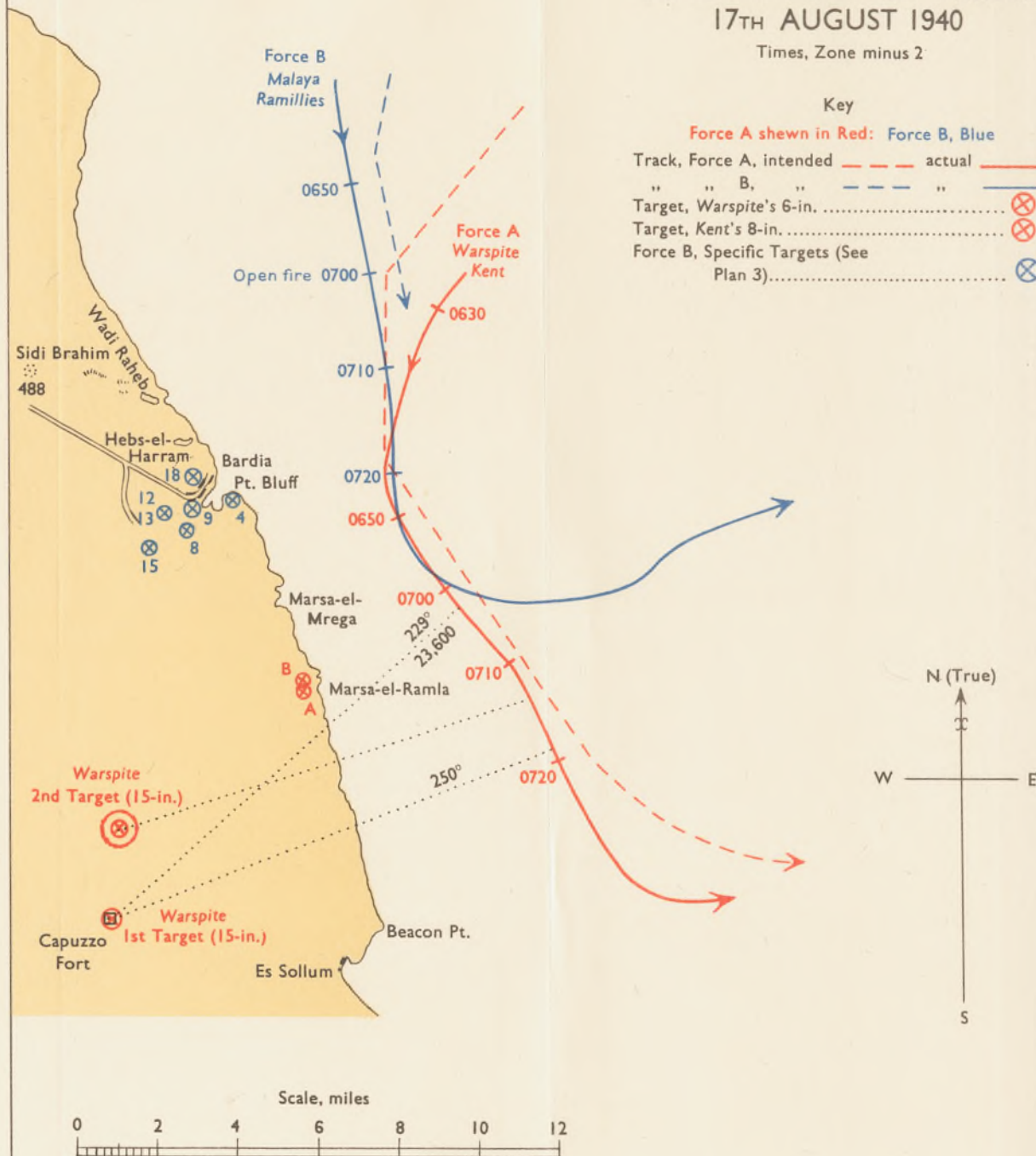
BOMBARDMENT OF BARDIA 17TH AUGUST 1940

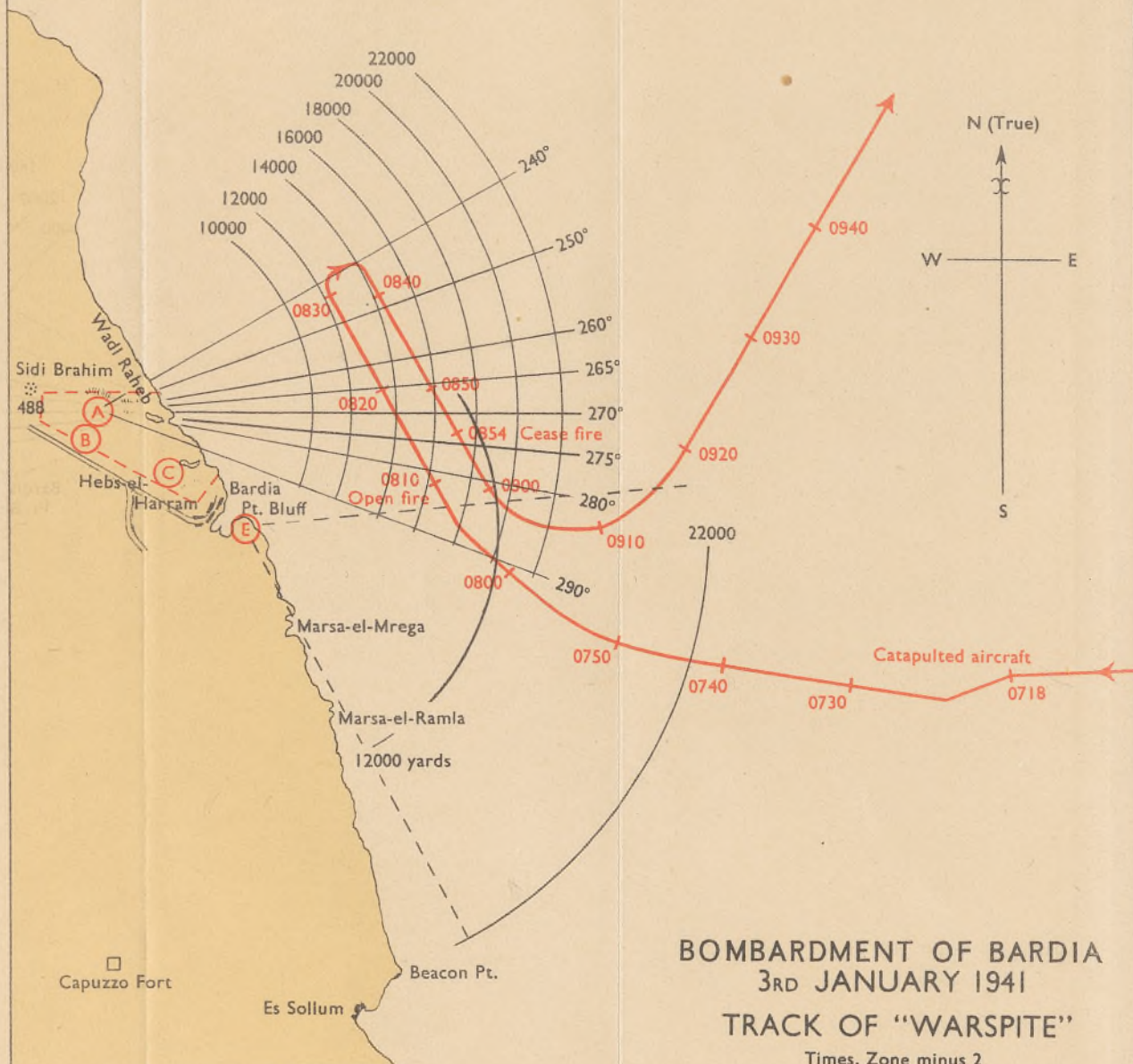
Times, Zone minus 2

Key

Force A shown in Red: Force B, Blue

- Track, Force A, intended ——— actual ———
 " " B, " ——— " ———
 Target, Warspite's 6-in. (X) A
 Target, Kent's 8-in. (X) B
 Force B, Specific Targets (See Plan 3)..... (X)





BOMBARDMENT OF BARDIA 3RD JANUARY 1941

TRACK OF "WARSPITE"

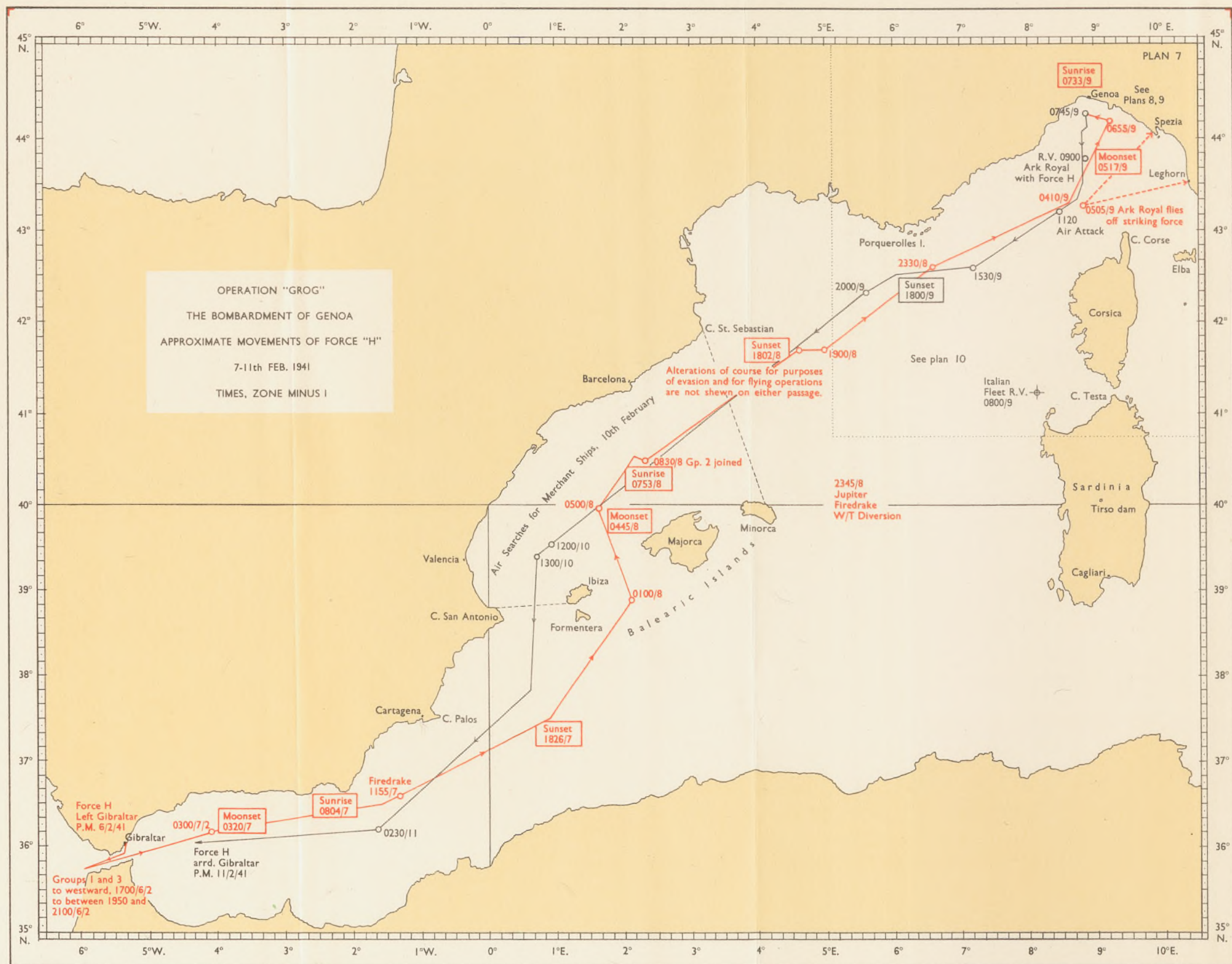
Times, Zone minus 2

Key

- Reference Point, Warspite (A)
- " " Valiant (B)
- " " Barham (C)
- Counter battery bombardment area (E)

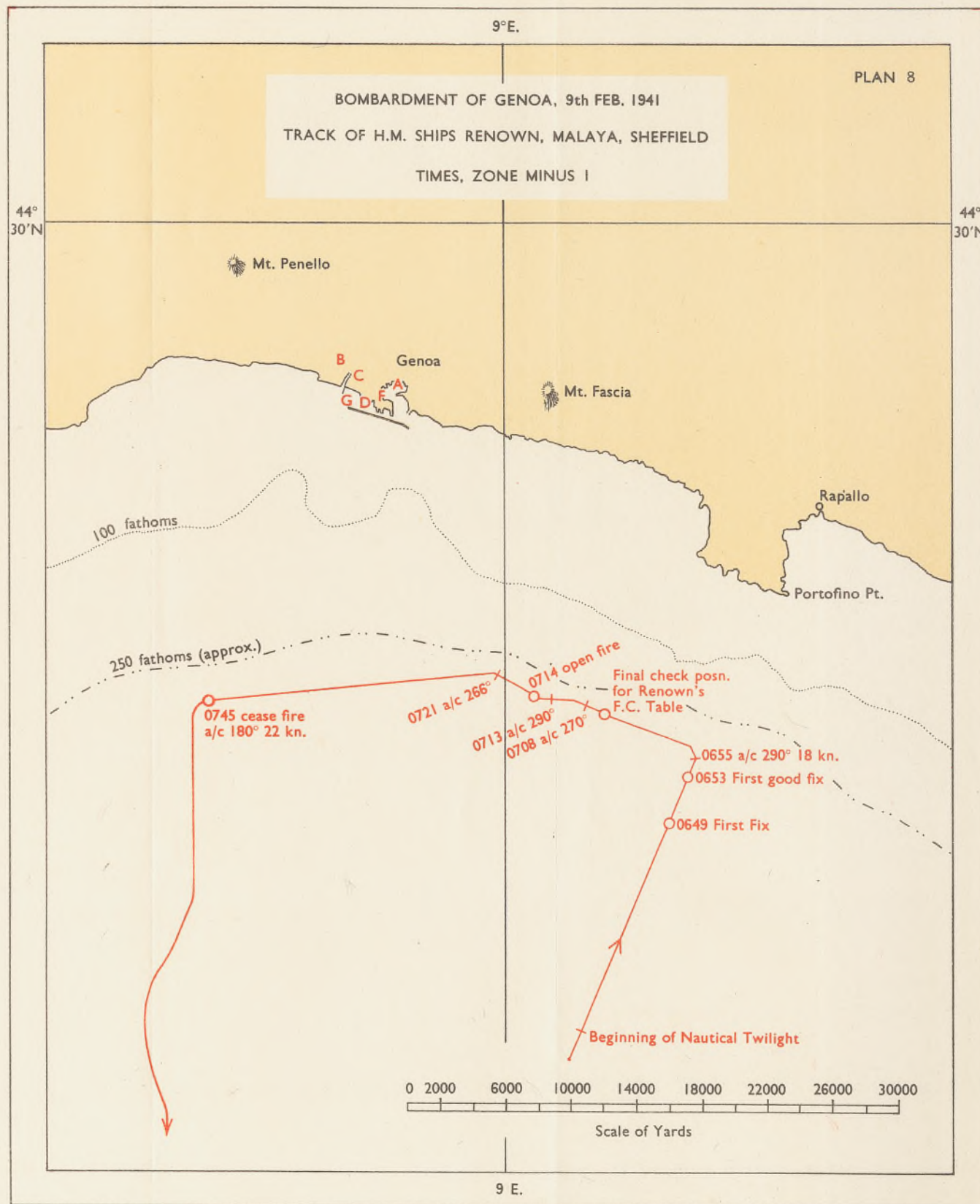
Outward passage, Gibraltar to Genoa ———
Return passage, Genoa to Gibraltar ———

Note:— No track chart was rendered with the reports from Force H. The movements shown, plotted from the reports and the logs of the ships concerned, are therefore approximate only, but are sufficiently accurate to enable the course of the operation to be followed.



Approximate Positions of Target Areas (see App. D.)

A, B, C, D, F, G



BOMBARDMENT OF GENOA

9th FEBRUARY 1941

Key

Planned bombardment areas, targets etc., shown in Green

Estimated fall of shot, Red.

Bombardment area

Renown 15 in. 8

Malaya 15 in. 36

Sheffield 6 in., first 9 salvos 7

Sheffield 6 in. 79

Renown 4 in. 250

Italian estimate of fall of shot in Areas A, F, D (only)

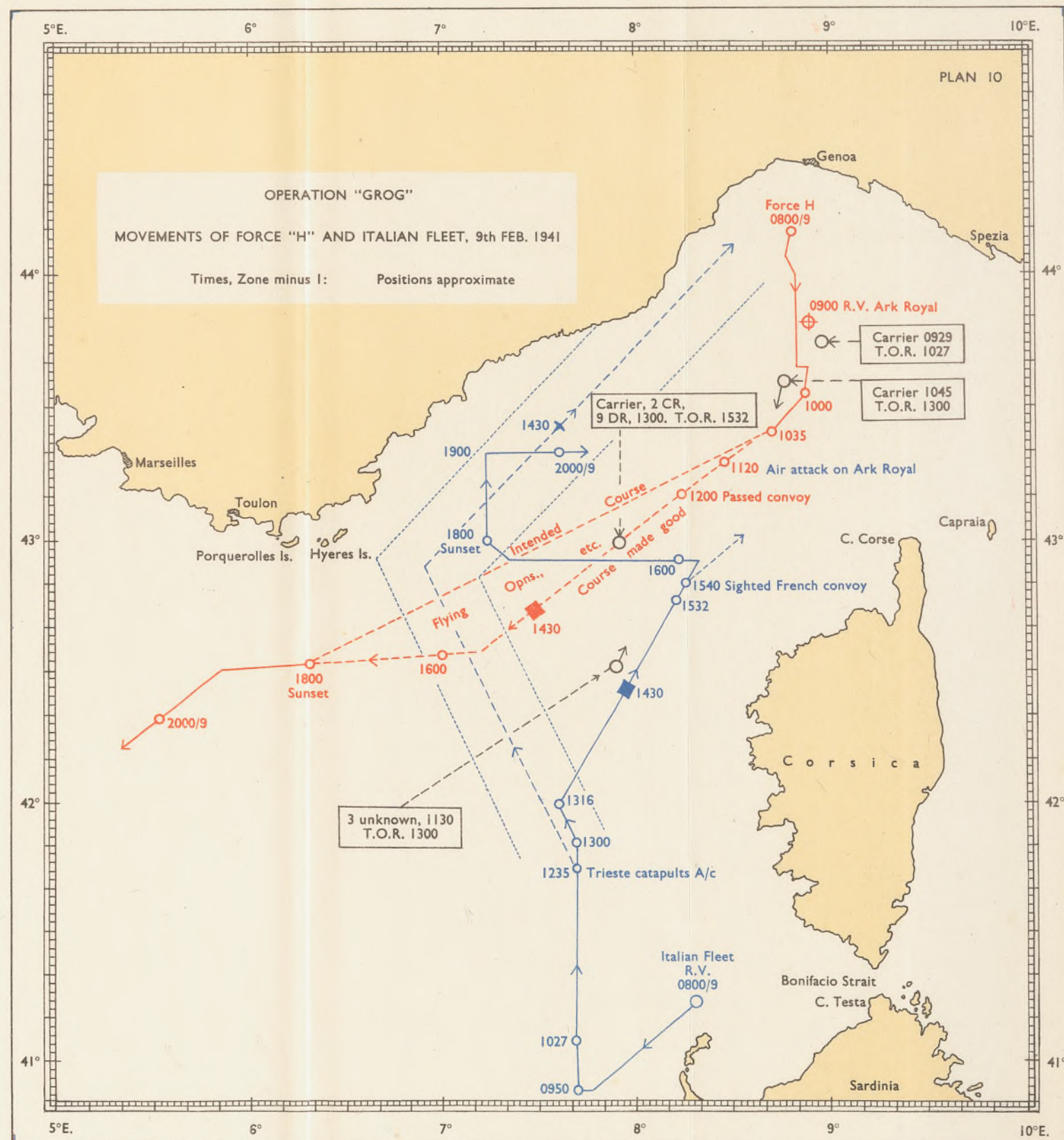
Post-War Italian information, Blue

Target Number

Numbers refer to No. of salvo, e.g. Renown's 8th. Only 30 out of 43 of Malaya's salvos were marked

Numbers refer to No. of rounds in the area





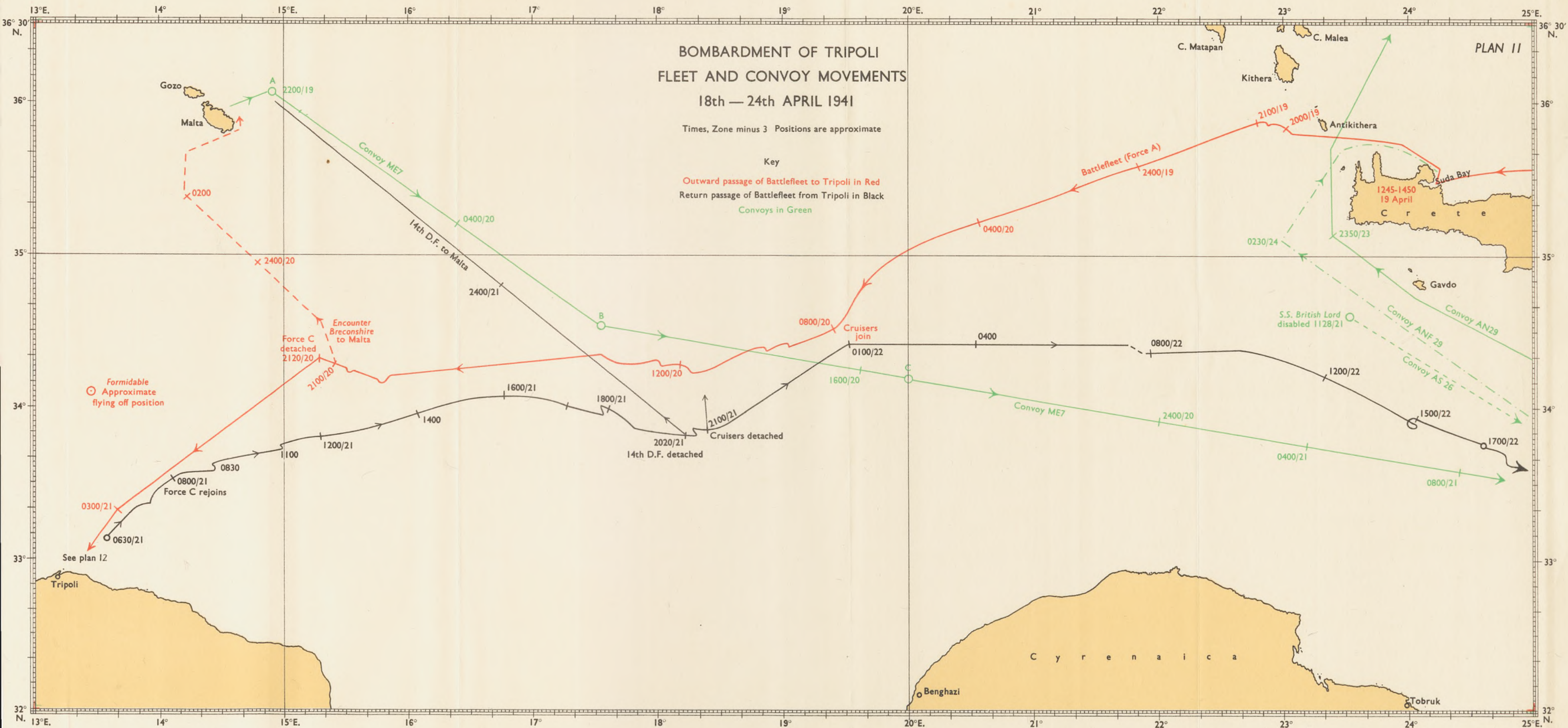
Key

British movements shewn in Red; alterations of course for flying operations, etc., are NOT shewn, Italian movements shewn in Blue
 Enemy reports, with times of receipt by the Italian C-in-C, shewn in Black
 Ship symbols shew position at 1430/9

PLAN 11

Key

Convoys in Green



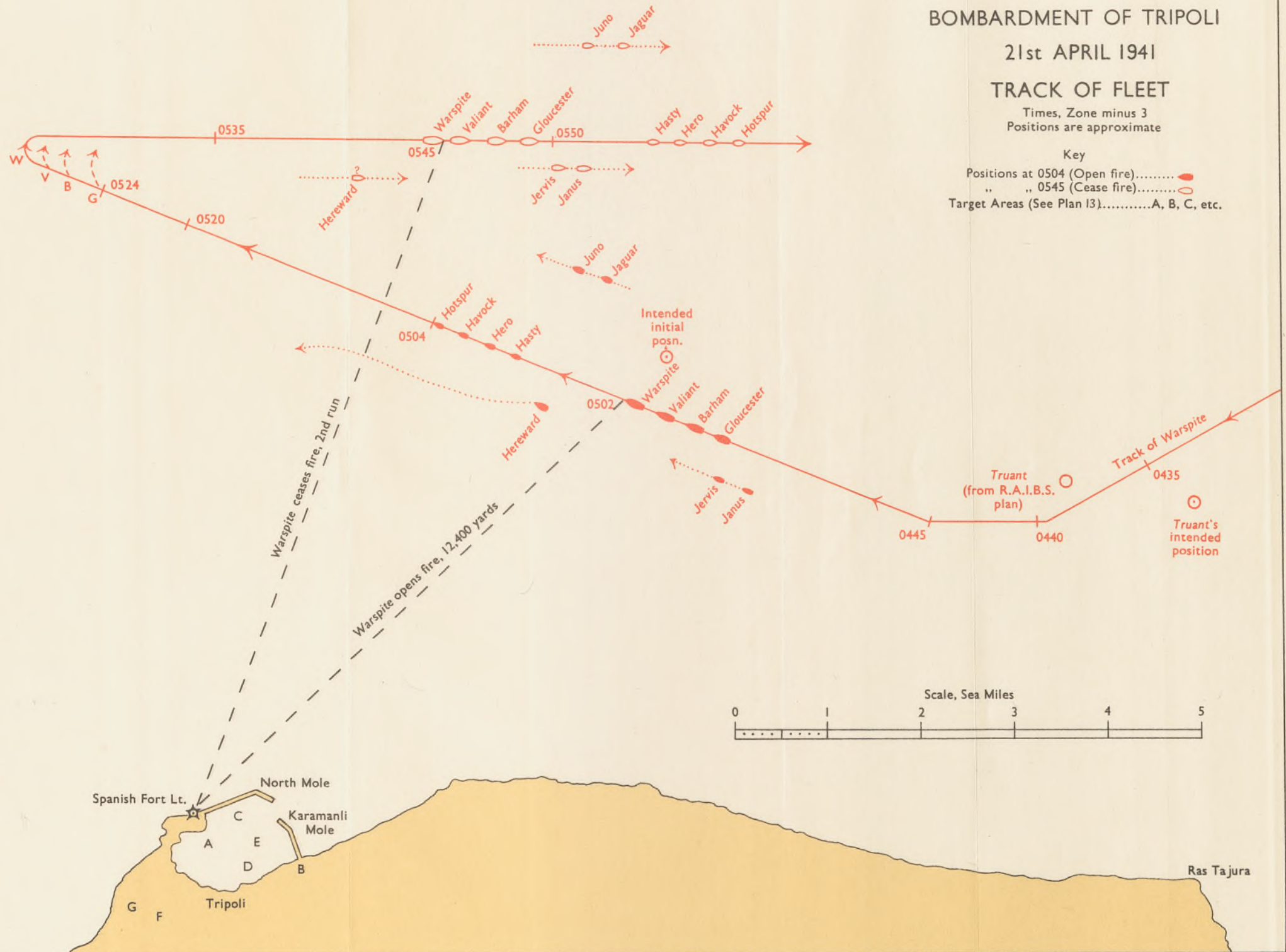
BOMBARDMENT OF TRIPOLI

21st APRIL 1941

TRACK OF FLEET

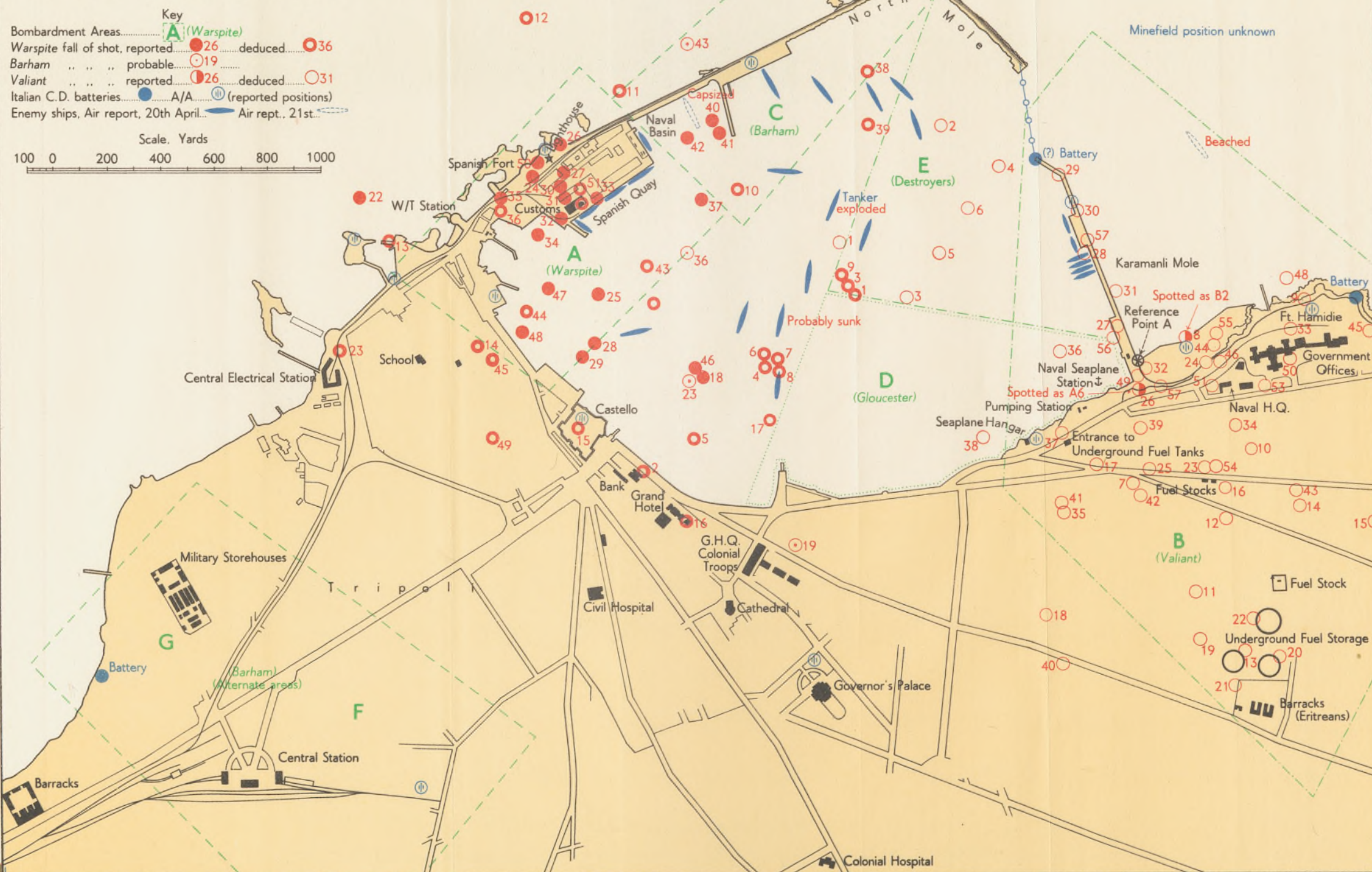
Times, Zone minus 3
Positions are approximate

Key
Positions at 0504 (Open fire).....
" " 0545 (Cease fire).....
Target Areas (See Plan 13).....A, B, C, etc.



PLAN 13

ESTIMATED FALL OF 15-IN. SHELL



PLAN 14

FALL OF SHOT ON SHORE FROM ITALIAN PLAN

Key

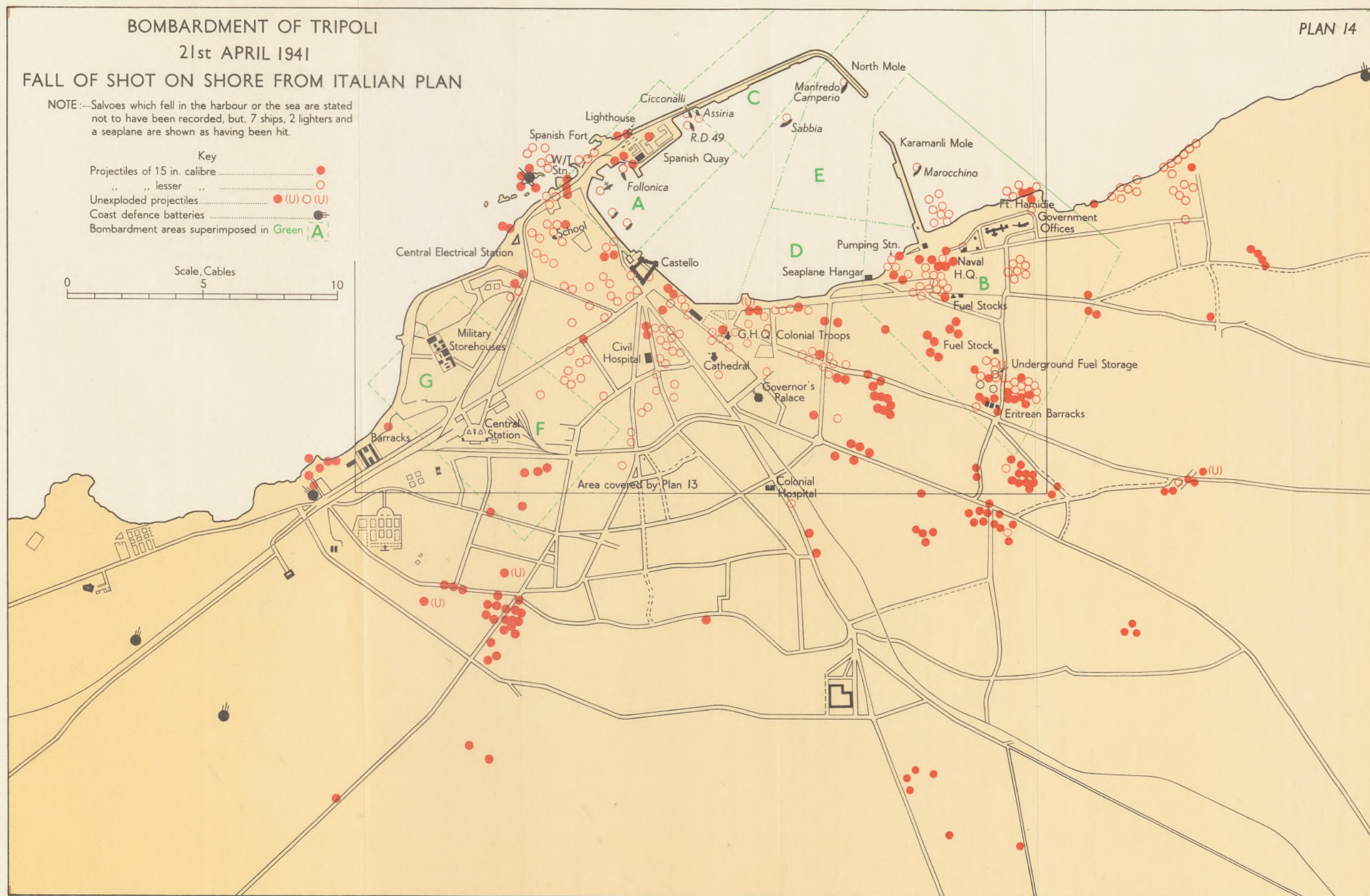
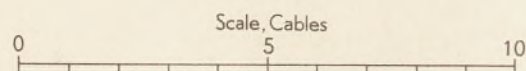
Projectiles of 15 in. calibre ●

" " " lesser " ○

Unexploded projectiles ● (U) ○ (U)

Coast defence batteries ●

Bombardment areas superimposed in Green [A]





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